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the American Perfumer and ESSENTIAL OIL REVIEW

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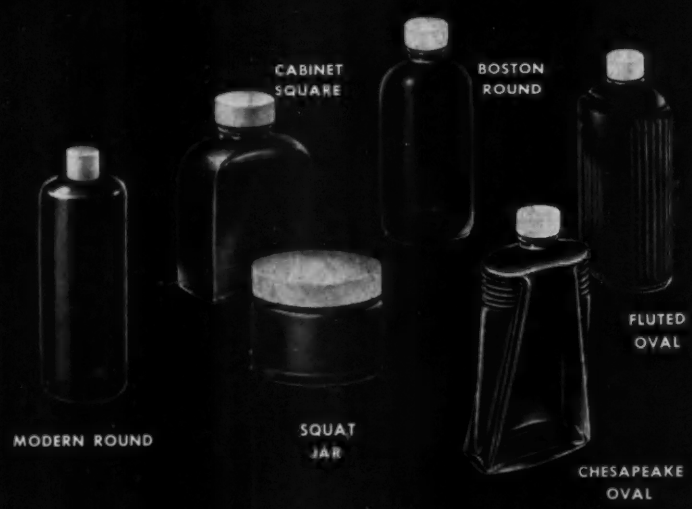

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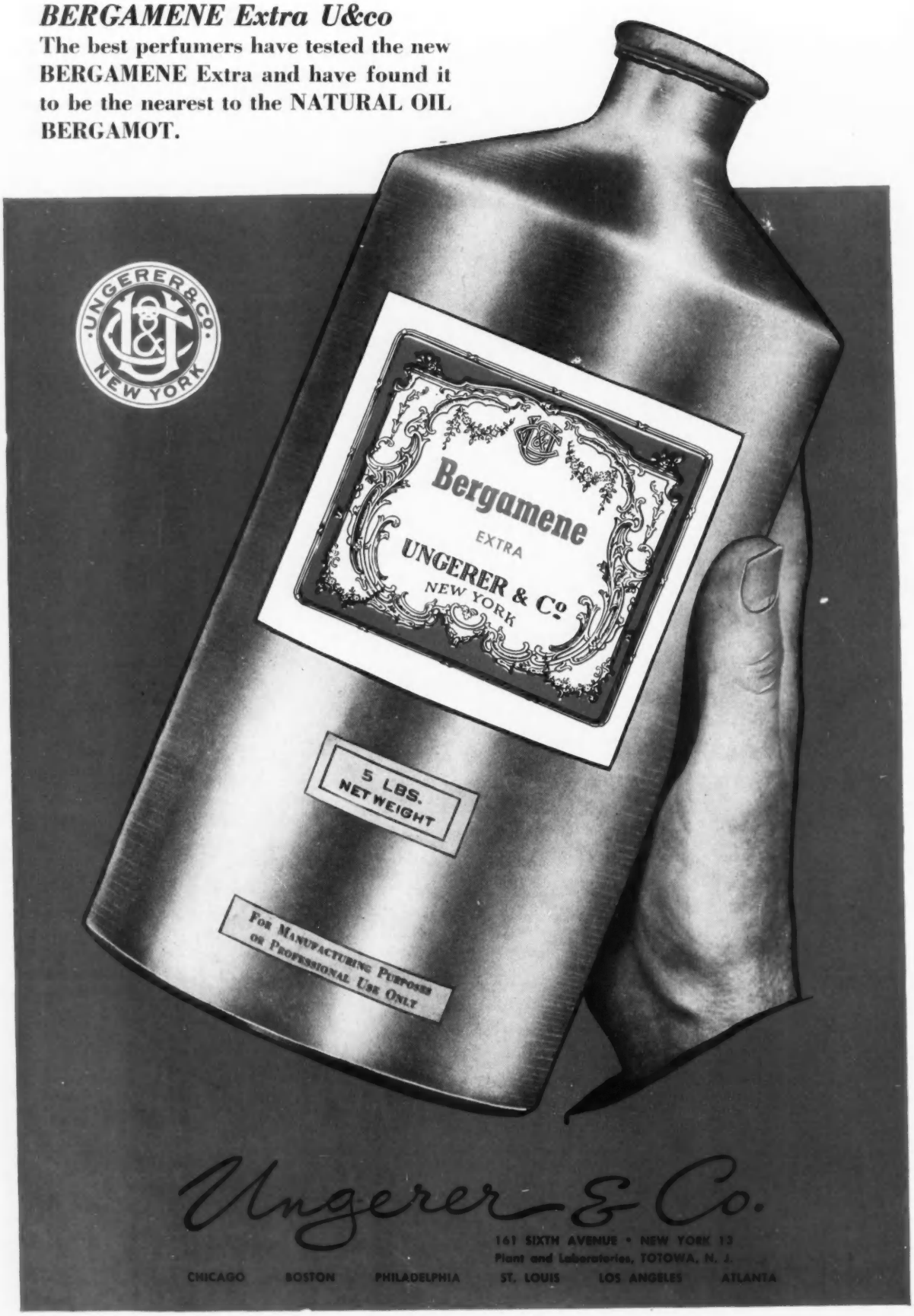

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the American Perfumer and ESSENTIAL OIL REVIEW

COSMETICS · SOAPS · FLAVORS

Established 1906

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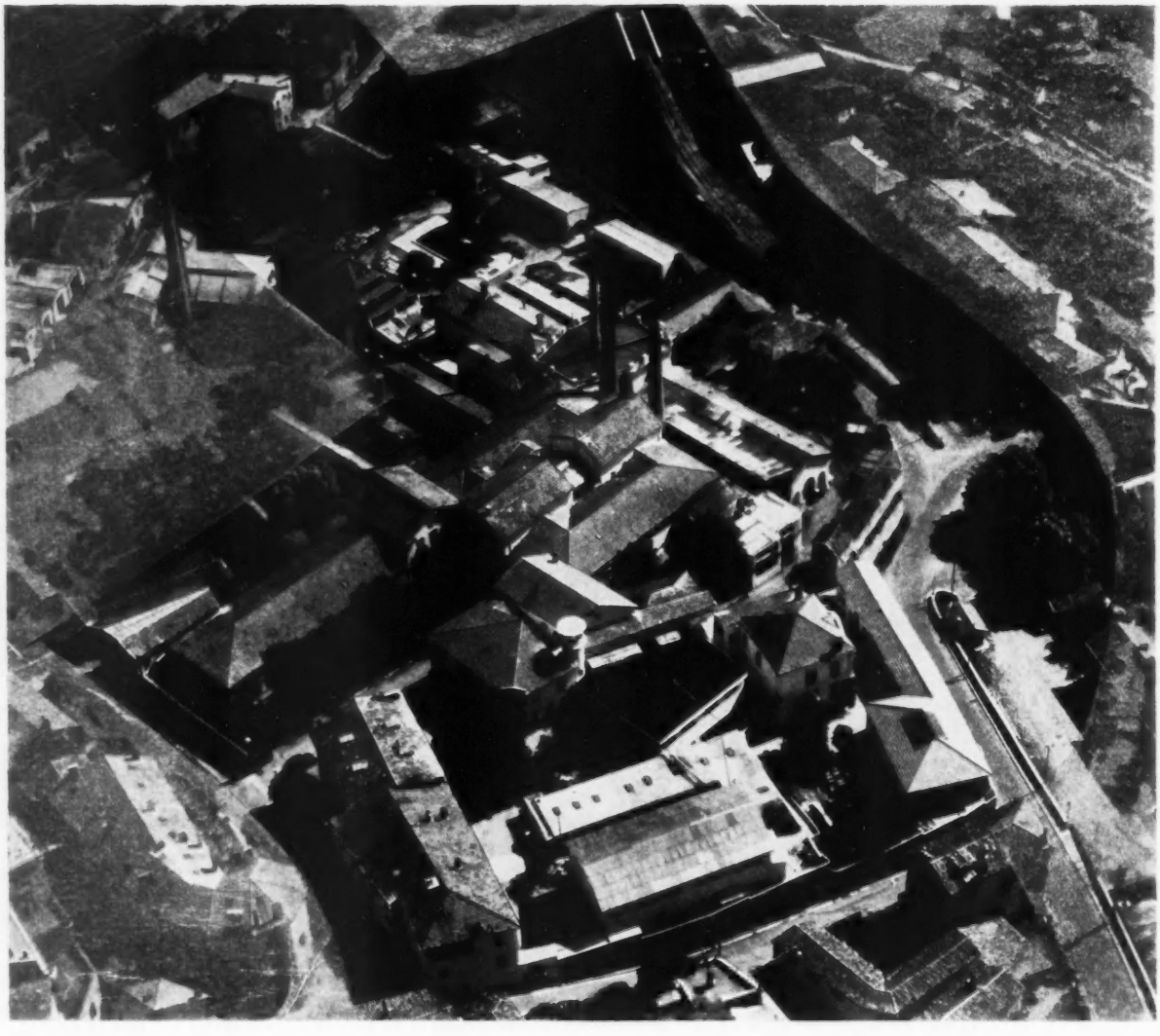

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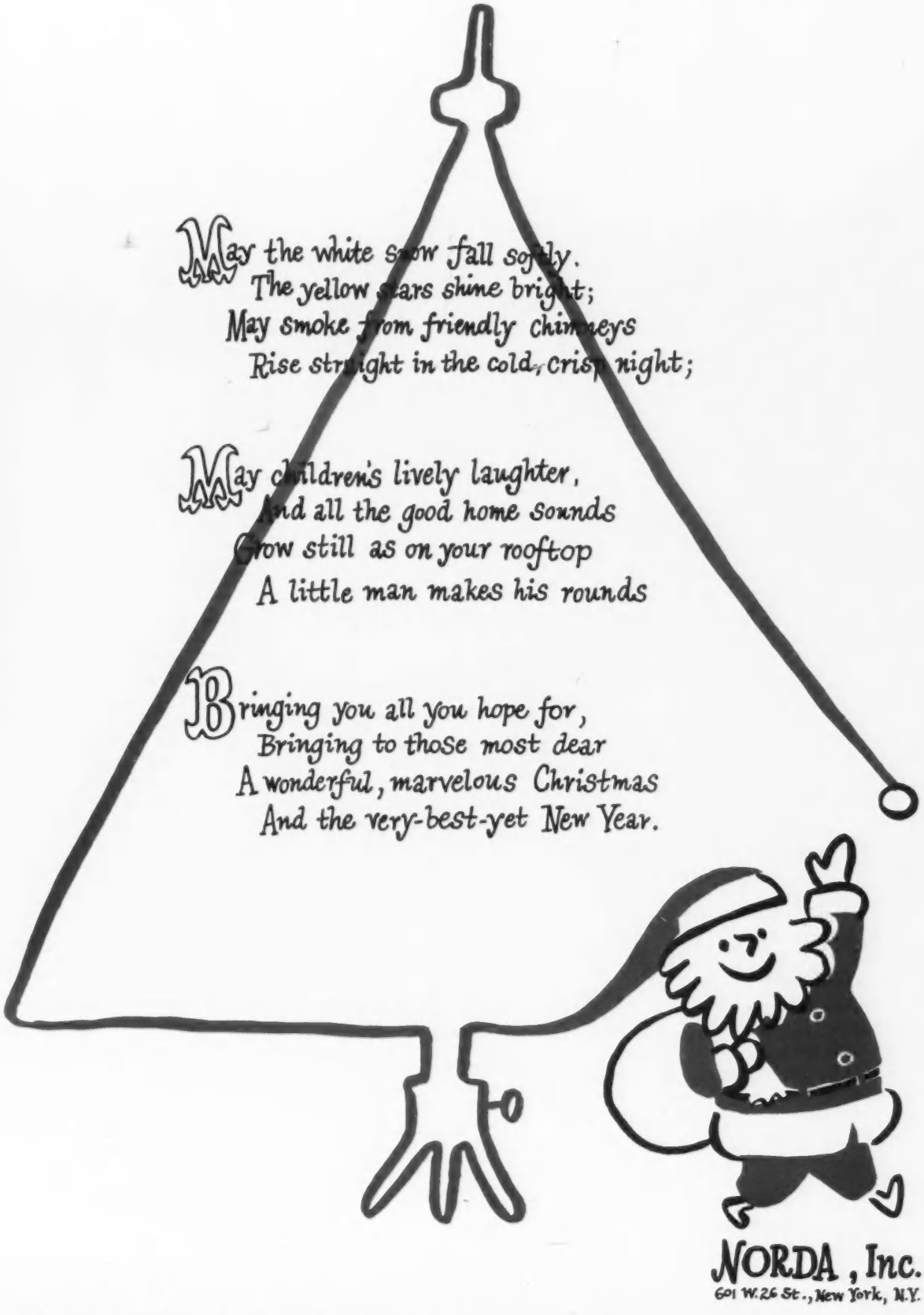
May the white snow fall softly.
The yellow stars shine bright;
May smoke from friendly chimneys
Rise straight in the cold, crisp night;
May children's lively laughter,
And all the good home sounds
Grow still as on your rooftop
A little man makes his rounds
Bringing you all you hope for,
Bringing to those most dear
A wonderful, marvelous Christmas
And the very-best-yet New Year.

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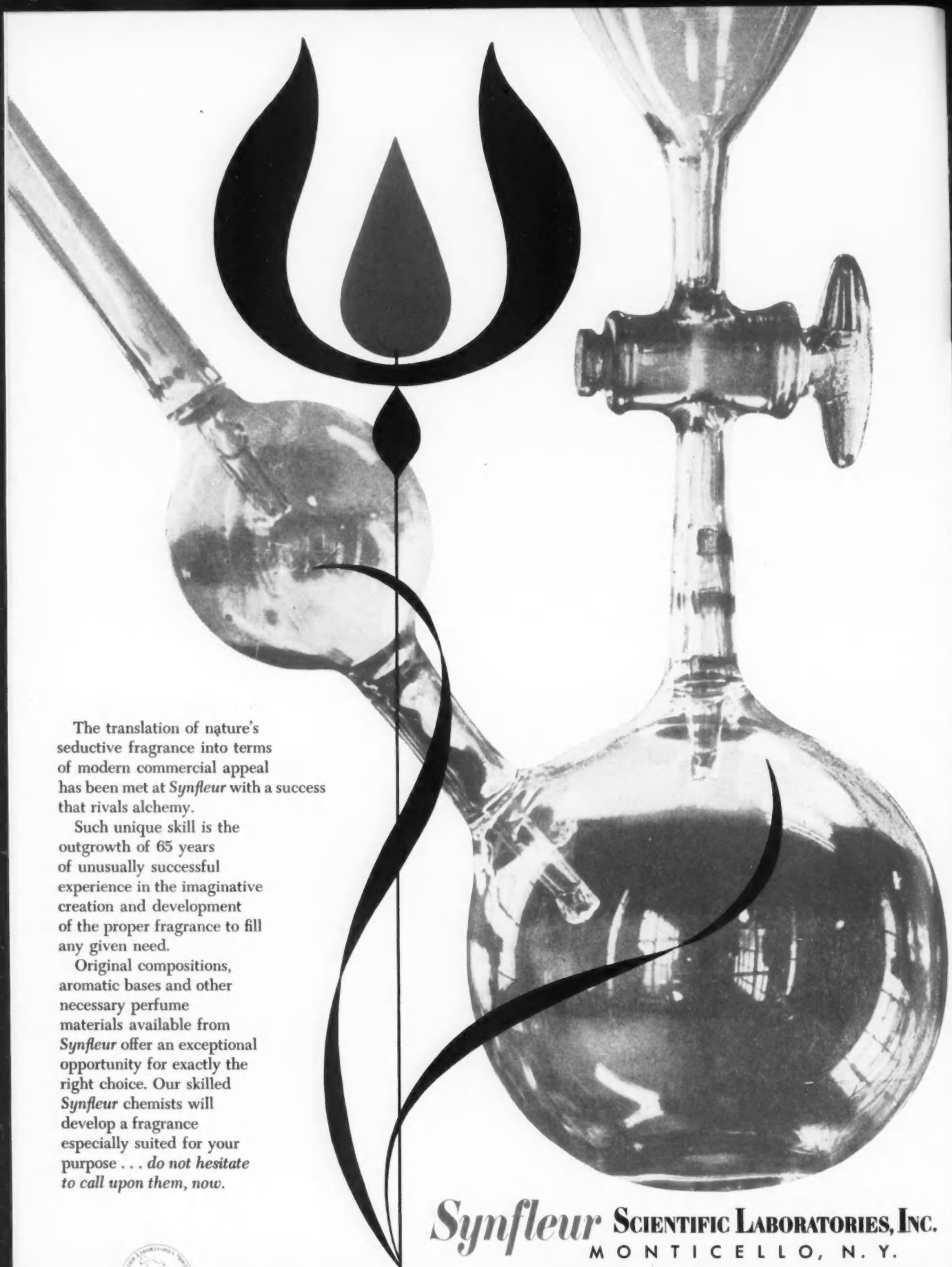

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TOP NOTES by

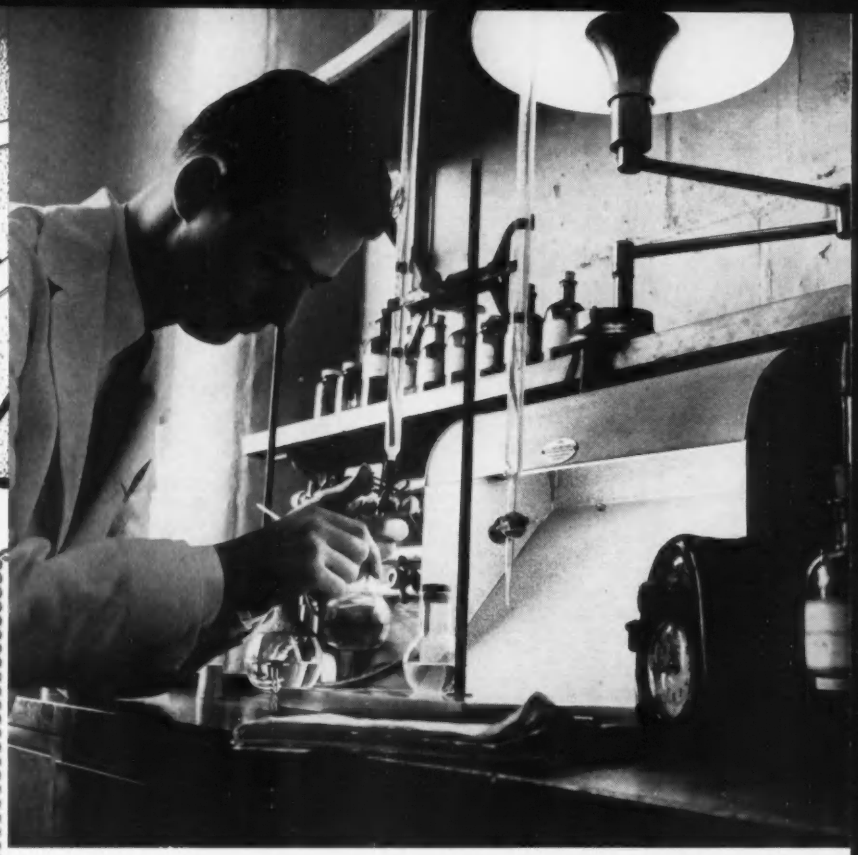
FLOWER of the Month

December—Narcissus
or Holly

January—Carnation
or Snowdrop

MAYBE YOU KNOW HIM . . .

ALTHOUGH a comparative newcomer to the sales staff of Fritzsche Brothers, ARLEY W. GRIFFITH has spent practically all of his nine-year business career with our firm. A native Missourian, he joined our St. Louis Branch as a stock clerk in 1946 after a short hitch in the Navy. Selling intrigued him and it was not long before he had set his sights on the Sales Department. In order to qualify himself, "Griff" attended Washington University Night School where he specialized in chemical engineering. Two years ago his dream was realized and his most memorable day was when he made his first call as a Fritzsche sales representative. After a year's experience in the St. Louis territory, he was reassigned to our Atlanta Branch and he's now calling on "a lot of wonderful people" in North and South Carolina, Eastern Tennessee, Alabama and Eastern Georgia. This boy really loves selling! On the personal side, his present interests center around his new home, his Church, his lovely wife, Florence, and the anticipation of a "happy little event"—the family's first —next Spring. His aspirations: to "break 80" at golf (after first breaking 90), and to spend his remaining 39 years before retirement with Fritzsche Brothers.



CHEMIST EMPLOYING HYDROXYLAMINE HYDROCHLORIDE METHOD FOR DETERMINATION OF ALDEHYDES BY TITRATING WITH STANDARDIZED ALKALINE SOLUTION

MULTIPLY the operation pictured above by *every lot* of oils and aromatics that enter our plant and you get some notion of what it means to guarantee, unconditionally, the quality of our merchandise. Multiply this figure again by the half dozen or more *different* tests each lot is subjected to and you gain an additional idea of what such assurance involves. Then follow along adding to this the meticulous care that is practiced in our handling of an order from the time it is entered until it leaves our plant, expertly compounded, carefully checked, packaged, routed and shipped—usually the same day—and you just can't help saying to yourself: "No wonder FRITZSCHE products never give me any cause for complaint!"

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A THOUGHT for the Month

"There is nothing that makes men rich and strong but that which they carry inside of them. TRUE wealth is of the heart, not of the hand."

—JOHN MILTON

RECOMMENDATION of the Month

MARJAH

. . . a new fragrance we're really proud to present . . . a lingering, heavenly floral so beautifully blended you will know it only as an exciting and provocative bouquet. More specifically, MARJAH is a woody, ambre, spice-tinted base odor modified with various floral characters, including rose, jasmine and ylang, and perked up with an attractive citrus, aldehydic, somewhat green, herby top note. The whole has been rendered warm, rich and harmonious by the discreet application of select animal fixatives. MARJAH is priced at $50.00 per pound; $3.50 for a trial ounce. You *must* try this exquisite new fragrance!

1954 . . . *To those of you in whose hopes and plans we have been privileged to participate during the past year, our very sincere appreciation for the confidence in us you have thus demonstrated. . . . And to you from whose fertile minds and soaring ambitions will come this year's most exciting new creations, may we venture the hope that our specialized services can, in some measure at least, contribute to your further success throughout . . .* **1955**

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Wistaria L-910	*8.50 lb.*
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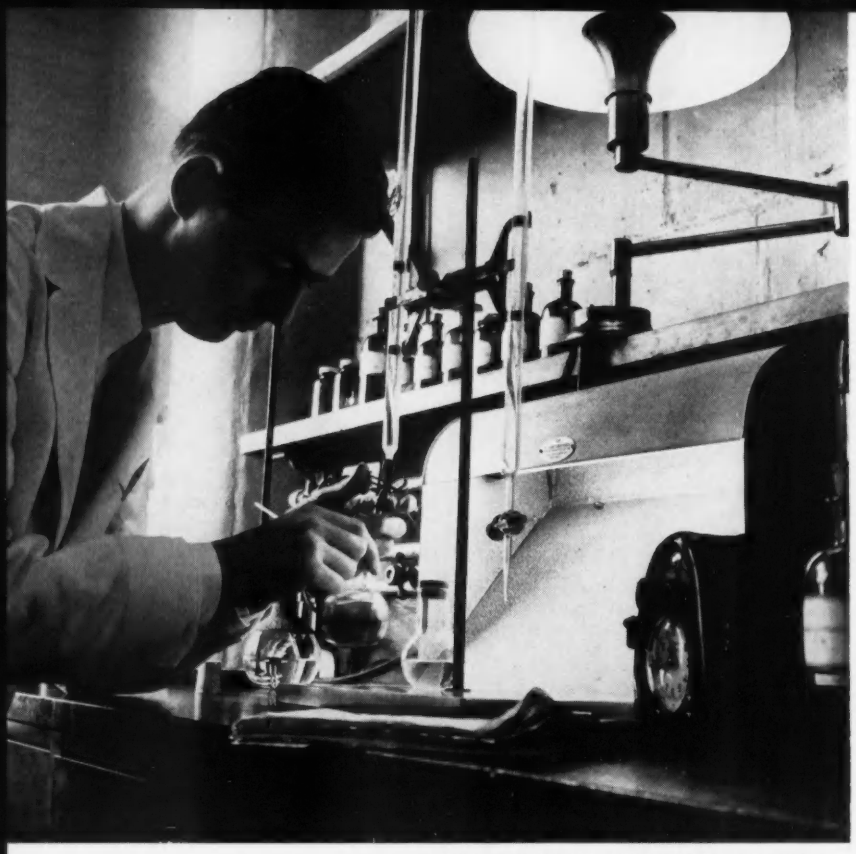
- ☐ **ORANGE BLOSSOM U-133**
- ☐ **WISTARIA L-910**
- ☐ **LIGHT FRENCH BOUQUET L-417**
- ☐ **SPICE Q-053**



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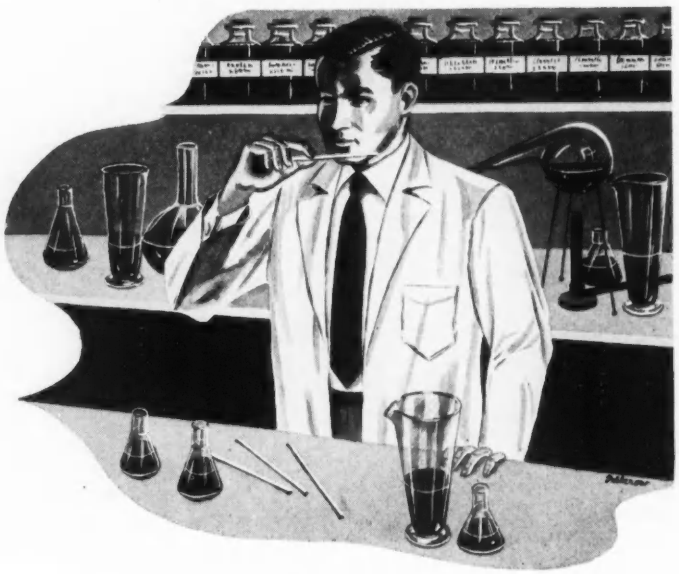

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soap, cosmetics, or allied industries,
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*Chemical Senses, page 1, Moncrief—lists senses as follows: "sight, hearing, touch, taste, smell." Note smell is listed Fifth.

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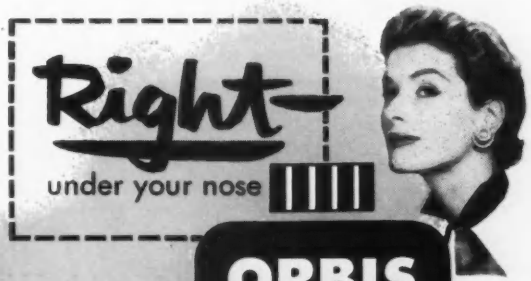

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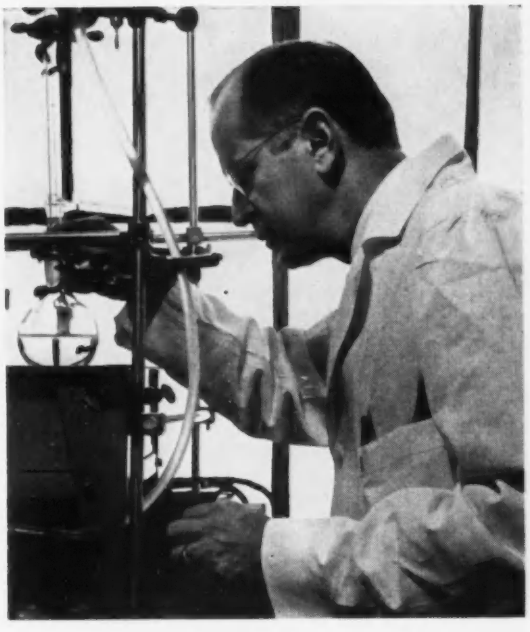
BY MAISON G. DENAVARRE, F.A.I.C.



Cationic Poisoning

In the *Bull. Am. Soc. Hosp. Pharm., 11,* (5), 402, 1954, Morgan and Fischer report on the symptoms and treatment of accidental poisoning by a cationic germicide of the type alkyldimethylbenzylammonium chloride. The patient had taken it for mineral oil. The material in *50 per cent* solution, caused swelling and a superficial sloughing of those parts of the throat which had contacted it. Abdominal pain and vomiting were present.

In such cases, milk and egg white are the antidote. The case in question was given hypodermic sedatives and intravenous fluids as well.

This note should be filed for future use because cationics are increasingly being used in cosmetics.

Removing Charcoal From Skin

Ralph Holman, writing in the *Chemist Analyst* finds the easiest way to remove carbon from the skin is to first cover the hands with oil, then wash off with soap and water.

We have found solutions of mineral oil in sulfonated oils to do the job well too.

Perfume Rancidity

Sfiras writing in the August issue of *Recherches* (1954) reports on the change in many aromatic chemicals. Thus he points out that methylionone turns sour and turpentine-like in odor; esters and lactones hydrolyse; indole in diethylphthalate turns red in color; phenylacetaldehyde gets thick and picks up a benzaldehyde odor; decyl aldehyde turns fatty and so on.

He then discusses antioxidants for aromatic materials, pointing out that a substance that is antioxidant for one ingredient may be a prooxidant for another.

It is a very thorough review of a subject on which little is truly written. Congratulations and thanks to author Jean Sfiras.

Notes

A report in *Arch. Dermatol. and Syphilol., 70,* 235, 1954, indicates that a solution of 7.5 mg. of ammoidin and 3.75 mg. ammidin per cc in isopropyl alcohol produced hair growth in three cases of alopecia areata. . . . Did you know that glycyrrhizin, the active material in licorice, is fifty times sweeter than sugar. . . . Keep nylon out of the sun and heat—don't have it around in smog either, say Leininger and Heiligmann of Battelle Memorial Institute. . . . More data on use of silicones in cosmetics is in the offing—suppliers have reduced prices too. . . . Does anyone know of a source of THF salicylate? . . . By the time this is published Will Poucher will have received his Medal from the Society of Cosmetic Chemists—Congratulations—well deserved! . . . Many will be glad to hear that Ninols will be made in France under an arrangement between the Ninol interests and a French company —The Society of Cosmetic Chemists of Great Britain are investigating the possibilities of a cosmetic course at Acton Technical College in West London. . . . Maxwell Finland talking before a meeting of the A. Ph. M. A. finds that of 500 strains of bacteria studied, 75 per cent are resistant to penicillin, 25 per cent to aureomycin and 33 per cent to terramycin—how about antibiotics in cosmetics in the light of this kind of data? . . . Watch out for perfume loss in packaging cosmetics, especially samples, in polyethylene envelopes. . . . Also some indication that mineral oil is bad for polyethylene containers too. . . . Chelates may be the cause of tooth decay according to Martin, Schatz and Associates. . . . Products of food metabolism may be chelators of calcium. . . . Cholesterol can be converted by the body into tetrahydrocortisone. . . . Lots of data on expenditures by U. S. people on personal care items are available from the Wharton School of the University of Pennsylvania through the U. S. Department of Commerce for a fee. . . . If you are using aluminum chlorhydroxide in dry form, you can save money and effort if you buy the solution instead. . . . If you must investigate antibiotics for cosmetics better see the paper read by Buckwalter of Bristol Laboratories at the last August A. Ph. A. Antibiotic Symposium—It is the best on incompatibilities and antibiotic stabilities. . . . Anybody know anyone that has an extra copy of McDonough's "The Truth About Cosmetics" or deNavarre's "The Chemistry and Manufacture of Cosmetics"—have some urgent calls for both. Ever try a magnetic pipeline to pull out slivers of iron in a product—its efficiency will amaze you. . . . M.I.T. is doing a lot of work on sterilization of products by radiation—as labile, a compound, a vitamin and even some antibiotics are unaffected.

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Questions & Answers

1109: Glass Cleaner Formula

Q. I would appreciate it very much if you would send me a good formula on a glass cleaner similar to the ones on the market, with a water base. I have been a subscriber of *The American Perfumer* for the past eleven years. *B. R. O., Mexico*

A. The following is a suggested formula for a glass cleaner such as you request:

Magnesium aluminum salicate	2.20
Water	68.80
Diethylene Glycol	8.90
Polyoxyethylene sorbitan monostearate	8.90
27% Ammonia	2.20
Kerosene (odorless)	4.50
Kieselghur finest	4.50

1. *Add the silicate to the water slowly, continually agitating until smooth.*
2. *Add the other ingredients to this liquid gel in the order listed. Mix until uniform.*

1110: Liquid Shaving Soap

Q. In issue 54:283, 1949, of *The American Perfumer* you published a formula for a liquid shaving soap. We are contemplating the manufacture of such a product, and find from the literature that liquid shaving soap in general is unstable. Would the use of CMC improve the product? We would be very grateful for any information that would aid in the production of a satisfactory product, and also the modus operandi in the handling of the formula. *L. B. C., California*

A. We question whether such a soap is unstable, and think it is largely a matter of formulation. Either methyl or carboxy methyl cellulose should help such a product. We would like to suggest offhand a formulation of soaps based principally on myristic and palmitic acids for use in a liquid shaving soap. You can try various proportions using mixures of alkalis including the alkanolamines.

1111: Vitamin Hair Lotion

Q. We manufacture medical and cosmetic preparations and have subscribed to THE AMERICAN PERFUMER AND THE ESSENTIAL OIL REVIEW for many years. Since we are interested in manufacturing of Panthenol vitaminous hair lotion (containing Pantothen acid) and Bepanthen ointment, we should be obliged to receive the prescription and information regarding the method of preparation of the hair lotion and ointment in question. *A. M., Finland.*

A. We are sorry to say that we are not in a position to give you any suggestions for vitamin hair lotion formulations and hasten to call to your attention the fact that there are many European patents on the use of these compounds in such preparations. You may care to write to Hoffman La Roche Co., 184 Grenazcherstrasse, Basle, Switzerland, who have the patents, to our knowledge.

1112: Hair Control Stick

Q. We would appreciate it if you could furnish us with any information on Plasticized Wax for hair control of "Crew or butch" haircuts. *P.I.C., Ill.*

A. We presume you refer to some kind of molded stick. If so, it takes about 25-35% of wax, the balance of oil, such as liquid petrolatum. The materials are melted and poured into ordinary molds just before setting up in the tank.

1113: Shampoo and Irritation

Q. We are interested in a formulation for a shampoo which is non-smarting to the eyes. At present, we have a liquid shampoo which we would like to change incorporating the non-smarting quality. Any information you might have for us would be greatly appreciated. *E. J., N. Y.*

A. All liquid shampoos have some smarting or irritating properties to the eyes. The question is one of degree. In the last three or four years a number of articles have been published on this subject by the Society of Cosmetic Chemists in their Journal, *the proceedings of the Scientific Section, Toilet Goods Asso., and* THE AMERICAN PERFUMER. *A general conclusion is that certain quarternary compounds and certain nonionics when used in combination with soap or other anionic surfactants, tremendously increase the eye irritation. Suppliers' names of various shampoo material are sent you by letter. They will be able to give you specific information on their respective materials.*

1114: Skin Lift

Q. What is a skin lifting cream? I would also like information as to which manufacturer supplies triolein ozonide compounds. *L.B.L., Tex.*

A. Obviously, no cosmetic can permanently lift skin. The classification used is a rather loose one. One can get transient tightening of the skin with a suitable astringent. The name of the supplier of triolein ozonide is sent by mail.

1115: Scalp Salve

Q. We would greatly appreciate it if you would send us under separate cover a formula for a scalp salve containing as active ingredients balsam of Peru, precipitated sulphur, liquor carbonis detergens and alcohol. For a binder we used Vaseline, but it is not satisfactory because it is heavy and cakes on the scalp. *P. W. B., Ore.*

A. The formula containing the several ingredients you mentioned would be difficult to compound without knowing its purpose and many other things. As a starter we suggest that you use not over 5 per cent of the three active ingredients and disperse them in a hydrogenated vegetable fat. The alcohol is present in the liquor carbonis detergens. We suggest that you mix the balsam with the liquor to which you will add the sulphur and make a slurry. This is worked into the fat and the whole thing milled into uniformity.

1116: Hair Dyes

Q. You have been recommended by the Cuticura Soap Co. of Malden, Mass., as an authority on my problem. What types of dyes (fruit, vegetable, etc.,) are used in the manufacture of hair dyes? Also do you know of any solution or compound that will clean the hands and nails of the stain resulting from the use of these hair dyes? *J.F.D., Mass.*

A. Most successful hair dyes are of the so-called "coal tar" type. Vegetable dyes for hair are practically unused except for henna. A reprint from the May, 1954, AMERICAN PERFUMER *is enclosed for your information. Operators usually wear gloves when dyeing hair. Reducing agents, abrasives and solvents are the only things that remove stains so far as we know.*

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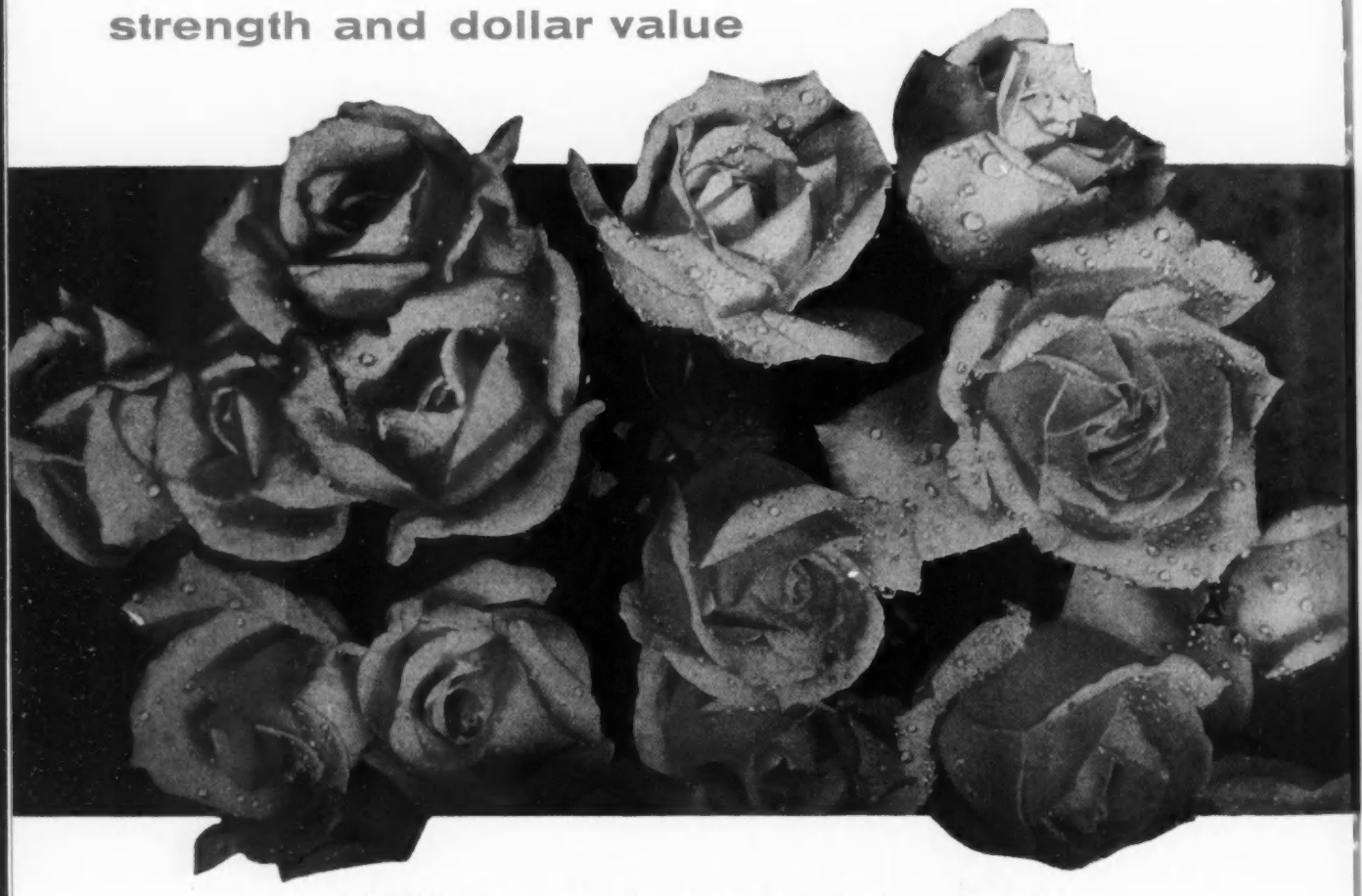

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Silicones:

New Cosmetic Vehicles

Properties which suggest their usefulness as protective ingredients for cosmetic creams, lotions, ointments, etc.

C. C. CURRIE and D. M. FRANSISCO*

Silicone-based sun tan lotions are not as easily removed by perspiration or a quick swim.

FOR some years, an unusual family of man-made fluids has been showing increasing promise as a series of vehicles and protective ingredients for cosmetological preparations. Similar in appearance and viscosity to high grade vegetable, animal and petroleum oils, these silicone fluids exhibit a variety of remarkable properties which strongly suggest their usefulness and desirability in personal grooming creams and lotions, proprietary ointments, and medical specialties.

Chemically, silicone fluids are high polymers of dimethyl siloxane. They are water-white, odorless and virtually tasteless. Those with a viscosity of 10 or more centistokes have a boiling point greater than 400°F, and are nonvolatile at normal temperatures. They are unusually stable to extremes of heat and cold, and their viscosity varies only slightly with temperature. They are insoluble in water and are highly repellent to water and to water-borne sensitizing or irritating substances. Equally resistant to oxidation, they do not become rancid even after prolonged exposure to air at elevated temperatures.

While most silicone fluids are insoluble in highly polar solvents and can be dispersed only in chlorinated or hydrocarbon solvents or in emulsions, newer fluids have been developed which display most of the characteristic silicone properties and yet may be dissolved in 95% ethyl alcohol. At the same time, these newer fluids are much more compatible with the various conventional agents used in formulating cosmetics.

* Dow Corning Corp., Midland, Mich.

Exhaustive investigations of the toxicity of silicone fluids have been carried out for years, both on laboratory animals and on humans. Conclusive evidence has been gathered to indicate that the fluids are very low in toxicity and present no significant handling problems. They have not shown any immediate or delayed reactions on skin contact, and the new fluid appears to be nonirritating even to the eyes.

Potential Applications

Several silicone-containing cosmetics and protective creams are already on the market. Dozens of others are in various stages of development. Included among their present and potential applications are the following uses:

Water repellent bases for domestic or industrial hand creams and dermatological protectants.

Moisture repellents for noncaking facial powders and rash-preventing baby powders.

Water repellent and smear resistant additives in lipstick and chapping preventatives.

Nonrancidifying oils in hair grooming preparations, hair straighteners, and home permanents.

Stable, water-insoluble vehicles in deodorant, cuticle, and sun-screen lotions or creams.

Bases for burn unguents and flashburn protectants.

Extenders or diffusion rate retarders for perfumes and colognes.

Heat resistant bases for specialty cosmetics for motion picture and television use.

The range of possible formulations covering these ap-

Test areas where a silicone-based skin cream was applied are clearly visible when the entire hand is dipped in ink (left). The practical effectiveness of the cream becomes even more evident when the ink is rinsed off (right). Treated areas wash clean immediately, but vigorous scrubbing with strong soap is necessary to remove the rest of the stain.

plications is, of course, almost endless. The task of determining optimum quantities of the fluid to obtain the desired effect, plus that of determining the relationship of that factor to the other ingredients in a recipe, have just begun.

The product development laboratories of Dow Corning Corp. have prepared several general formulas to measure compatibility and stability. Perhaps they can serve as a springboard to the formulation of more specialized preparations on the part of the researcher.

Hand Cream

Ingredient	*Percent by Weight*
Silicone fluid 1*	25
Glyceryl monostearate	7
Water	67.7
Methyl parahydroxy benzoate	.25
Perfuming agent	.05

Mix water and glyceryl monostearate and heat to 80°C. While stirring at high speed, add methyl parahydroxy benzoate and the silicone fluid. Continue mixing while mixture cools to 50°C. Add perfume agent and mix till uniformly dispersed. Package at about 50°C.

Protective Cream or Ointment Base

Ingredient	*Percent by Weight*
Silicone fluid 1	50
Zinc stearate	50

Mix the silicone fluid and zinc stearate, and heat at 75°C until slight thickening is evident. Mix or mill until smooth and creamy.

Hand Lotion

Ingredient	*Percent by Weight*
Gum tragacanth	1.0
Water	49.0
Propylene glycol	14.75
Triethanolamine	0.5
Water	12.0
Oleic acid	0.75
Diglyco Stearate S	1.5
Propylene glycol	10.5
Silicone fluid 1	10.0

Soften and dissolve the gum tragacanth in water prior to mixing the other ingredients.

Mix the triethanolamine, water, oleic acid, Diglyco Stearate S and first portion of propylene glycol. Heat to 80°C and mix with a high speed agitator. Add Silicone fluid 1 with rapid mixing. Continue mixing while adding the gum tragacanth solution and the balance of the propylene glycol.

Hand Lotion, alcohol-based

Ingredient	*Percent by Weight*
Silicone fluid 2*	5
Ethanol 39-C (95%)	95.7
Perfuming agent	0.3

Mix the three ingredients until solution is uniform, and package.

Sun Screen Lotion, alcohol-based

Ingredient	*Percent by Weight*
Dipropylene glycol salicylate	0.25
Silicone fluid 2	5
Ethanol 39-C (95%)	94.45
Perfuming agent	0.3

Mix the four ingredients until solution is uniform, and package.

Hair Dressing Cream

Ingredient	*Percent by Weight*
Polyoxyethylene stearate	10
Glyceryl monostearate	4
Water	15
Silicone fluid 3*	5
Water	66

Mix the polyoxyethylene stearate, glyceryl monostearate and first portion of water, and heat to 80°C. While mixing with a high speed agitator, add the silicone fluid. Mix with high speed agitator while slowly adding the second portion of water and continue until the mixture cools to 50°C. Package at about 50°C.

Several of the heavier type silicone-containing creams have been on the market for some time. Used primarily in industry to prevent skin disturbances caused by contact with irritating oils and solvents, their effectiveness is receiving steadily increased recognition.

Popularity Growing

The popularity of the few sun tan lotions and domestic hand creams containing silicone which have already reached the market is also growing rapidly. It is believed that the next few seasons may well witness the complete acceptance of silicones by the industry, not merely as "selling point" additives, but as basic ingredients in better cosmetics.

Compatibility

The following table gives a measure of the degree of compatibility of Dow Corning silicone fluids with various agents used in cosmetics preparation:

*The generic terms used in the article refer to specific trade named products as follows: Silicone fluid 1—Dow-Corning 200 Fluid, 350 centistokes; Silicone fluid 2—Dow-Corning 555 Fluid; Silicone fluid 3—Dow-Corning 200 Fluid, 100 centistokes.

Agent	Ratio of Agent to Silicone Fluid	Silicone fluid 2	Silicone fluid 1 20 cs	Silicone fluid 1 350 cs
Beeswax	100 to 1	C	I	I
	10 to 1	C	I	I
	1 to 1	C	I	I
	1 to 10	C	I	I
	1 to 100	C	I	I
Diethylene glycol stearate	100 to 1	C	I	I
	10 to 1	C	I	I
	1 to 1	C	I	I
	1 to 10	C	I	I
	1 to 100	C	I	I
Ethanol 95%	100 to 1	C	I	I
	10 to 1	C	I	I
	1 to 1	C	I	I
	1 to 10	I	I	I
	1 to 100	I	I	I
Glycerin	All are incompatible in all proportions			
Glyceryl monostearate	100 to 1	C	I	I
	10 to 1	C	I	I
	1 to 1	C	I	I
	1 to 10	C	I	I
	1 to 100	C	I	I
Isopropanol 99%	100 to 1	C	C	I
	10 to 1	C	C	I
	1 to 1	C	C	I
	1 to 10	C	C	C
	1 to 100	C	C	C
Isopropanol 70%	All are incompatible in all proportions			
Isopropyl myristate	20 to 1	C	C	C
	1 to 1	C	C	C
	1 to 20	C	C	C
Lanolin	100 to 1	C	C	I
	10 to 1	C	I	I
	1 to 1	C	I	I
	1 to 10	C	I	I
	1 to 100	C	I	I
Mineral Oil (light or heavy)	100 to 1	C	I	I
	10 to 1	C	I	I
	1 to 1	C	I	I
	1 to 10	C	I	I
	1 to 100	C	I	I
Oleic acid	100 to 1	C	I	I
	10 to 1	C	I	I
	1 to 1	C	I	I
	1 to 10	C	I	I
	1 to 100	C	I	I
Ozokerite	100 to 1	C	I	I
	10 to 1	C	I	I
	1 to 1	C	I	I
	1 to 10	C	I	I
	1 to 100	C	I	I
Paraffin	100 to 1	C	C	I
	10 to 1	C	I	I
	1 to 1	I	I	I
	1 to 10	C	I	I
	1 to 100	C	C	I
Petrolatum	100 to 1	C	I	I
	10 to 1	C	I	I
	1 to 1	C	I	I
	1 to 10	C	I	I
	1 to 100	C	I	I
Propylene glycol	All are incompatible in all proportions			
Sesame oil	100 to 1	C	I	I
	10 to 1	C	I	I
	1 to 1	C	I	I
	1 to 10	C	I	I
	1 to 100	C	I	I

When heated in equal parts by weight with lanolin, Dow Corning 200, the standard dimethyl silicone fluid, remains distinctly separate and incompatible. Dow Corning 555 Fluid, however, blends with the lanolin as easily and completely as mineral oil; nor will it bleed out later after cooling.

Stearic acid	100 to 1	C	C	I
	10 to 1	C	I	I
	1 to 1	C	I	I
	1 to 10	C	I	I
	1 to 100	C	I	I
Stearyl alcohol	100 to 1	C	I	I
	10 to 1	C	I	I
	1 to 1	C	I	I
	1 to 10	C	C	I
	1 to 100	I	C	I
Water	All are incompatible in all proportions			

C—Compatible I—Incompatible

Display Materials

THEORETICALLY the materials that can be used in point-of-purchase displays are unlimited, and indeed variety is continually being sought, where low cost, workability or ruggedness warrant the choice. For the most part, however, the basic materials are paper, paperboard, wood and wood products, metal and wire, glass and plastics.

The use of plastics continues increasingly popular, with plastic foam a relative newcomer of broadening application; while paperboard has the widest range used alone, because of its economy and suitability to short-term promotions. Its increased use has been particularly evident in the construction of floor stands and counter dispensers (formerly constructed of more permanent materials), where its ease of assembly and sturdy construction assure a useful life span at modest cost.—*Modern Packaging.*

New Horizons in Aerosols

NEW Horizons in Aerosols was the theme of an interesting lecture by H. R. Shepherd, vice president and one of the founders of the Connecticut Chemical Research Corp. at the first scientific meeting of the New York Chapter of the Society of Cosmetic Chemists, in New York November 12. Mr. Shepherd is a graduate chemist from Cornell University and is chairman of the Aerosol Division of the Chemical Specialties Manufacturers Assn.

Mr. Shepherd pointed out the dynamic sales possibilities opened up by the aerosol. By means of charts shown on a screen the tremendous growth of the infant industry in the past three years was shown. Hair lacquers have benefitted enormously since adopting the aerosol as have also hair sprays and to a lesser extent deodorants. Figures for 1954 will be more impressive than those for 1953 and this, he held, emphasizes the need for an active aerosol program. All told it is probably better for the technical department to start the program by increasing research and development studies, rather than for the initiative to come from the sales department.

The first cosmetic product to adopt the aerosol was shaving cream. In some cases corrosion was a problem but now many containers with liners that will withstand synthetic detergents have been developed so that many new products can now be packed in this type of container. Probably a stainless steel container which can be packed at high pressure up to 25 or 50 lbs. will soon appear which will positively overcome all danger of corrosion.

Another problem has been clogging of the valves with certain preparations such as hair sprays; but this has been largely solved and there are now many shellac-based products which do not give clogging problems. The influx of PVP preparations has also had an influence in the solution of the problem. Some company, he felt, which comes out with a hair spray product for men will do a big job. About 75% of cosmetic products packed in aerosols are shaving cream and hair sprays; but no one has yet done a job with shampoos.

The concept of convenience is gaining headway among consumers; and many products will be welcomed if all the consumer has to do is press a button and the product comes out in the same form as it does from the conventional type of container. Tooth paste affords an example. If ten or twenty percent of the tooth paste manufacturers adopted a suitable aerosol container sales would probably outdistance those of shaving cream.

Many companies are experimenting with hair dyes and hair rinses but as yet they have not appeared on the market. The use of glass containers now made possible by lower pressure propellents will broaden the whole field of aerosol packed cosmetics. In fact, Mr. Shepherd held, the glass container is one of the greatest advances in aerosols. Pressurized plastic containers, rigid plastic containers and extruded nylon bottles will have obvious uses due to their non-corrosive properties and the possibilities of decoration.

Valve manufacturers are working to make aerosol valves do a better job and give more consumer satisfaction. The meter valve which has already appeared promises to open up a tremendous field.

In conclusion Mr. Shepherd spoke of the various propellents and pointed out that cosmetic manufacturers would be well advised to evaluate some of their products for aerosol use. A lively question period followed.

Chairman Michael Stanton opened the meeting and announced that the executive committee was working to set up an effective program without invading the national scope. He urged all members to attend the annual meeting of the parent Society in the Hotel Biltmore, December 9. There were 51 present at the meeting and Mr. Stanton pointed out that there was a potential membership list in the metropolitan area of 194 including 14 women. He felt that more women could be induced to become members. In Chicago about 33% of the membership is made up of women.

Miss Hazel Bishop, chairman of the House Committee, then asked for suggestions for suitable meeting places all of which will be given careful consideration. Gabriel Barnett, chairman of the Program Committee revealed the subjects of some of the important papers the committee is trying to obtain; and then introduced the speaker of the evening, Mr. Shepherd.

"Our giant economy lipstick . . . Makes a wonderful Christmas gift!"

May I say . . . that the economic outlook is for much more economic instability and vastly more intense competition than is expected by most business men and economists.—*Murray Shields, vice-president and economist, Bank of Manhattan Co.*

Men have made fortunes writing about women. They have also fared very well writing for women. Where they sometimes get into trouble is in writing to women.—*Arizona Progress.*

Perfume and the Skin

While the cosmetic chemist has been quite successful in eliminating allergenic or sensitizing ingredients from his basic formulas, perfume continues to present an interesting, albeit non-critical, problem worthy of dermatological inquiry.

EMIL G. KLARMANN, D.Sc.*

Dr. Emil G. Klarmann

CONSIDERING the substantial and ever increasing volume of cosmetics as well as their tremendous variety, any objective statistical study of their safety must lead to the inescapable conclusion that the use of today's cosmetics does not constitute any hazard. This most desirable and gratifying state of affairs is due to several factors of which the more important are as follows:

1. The cosmetic chemist is acutely aware that in spite of its great resistance to damage by external agents, the skin nevertheless represents a part of the human anatomy whose several essential functions are integrated with those of the rest of the system; this realization immediately elicits and justifies the chemist's insistence upon initial materials of the highest purity which, moreover, should combine the greatest possible blandness of character with the greatest possible cosmetic usefulness desired of any particular ingredient of a given cosmetic formula.

2. As evidence of this awareness, the chemist entrusted with the development of new cosmetic products is outspoken in demanding the required patch or use tests, or both, upon a sufficiently large number of subjects in order to insure, with adequate statistical certainty, the absence of any unexpected reactions at the time when the product as an article of commerce may be applied by thousands or even millions of users.

3. The informed chemist, preferably assisted or advised by a dermatologist, is on the lookout, at all times, for reported indications of any cosmetic substance acting as an irritant or a sensitizing agent; as soon as such information has been obtained and verified for its merits, as well as for its relevance, the decision is made to change the formula in which the substance in question occurs, often in the absence of a single actual consumer complaint having been made in reference to the original formula, in other words, as a precautionary measure.

Dermatological Aspects

All this is really axiomatic and requires no further elaboration. The fact remains, nevertheless, that even the greatest amount of care is unable to prevent an occasional untoward reaction from occurring upon the skin of some few users of a given cosmetic preparation which is used uneventfully and advantageously by an overwhelming majority.

In such a case, one is confronted usually with an allergic phenomenon. While this may not be the place to enter into an elaborate discussion of the dermal manifestations of allergy, no doubt, you are generally familiar with these matters; besides, a number of pertinent papers of an informative character have been appearing in rapid succession in the recent past. However, for the sake of the subject of my subsequent remarks, may I take the liberty of recalling to you the following fundamental facts:

1. That a primary chemical irritant harms the skin as a result of entering into some chemical reaction with it, or as a result of withdrawing some matter essential for the skin's normalcy.

2. That a chemical substance may act as a fatiguing agent in that it does not elicit a visible skin reaction upon a first contact, but that it effects certain changes following repeated insult, so that eventually a visible response is produced on the same area on which the offending agent has been applied.

3. That a primary irritant may also act as a fatiguing agent, or as a sensitizer, in that it may condition the skin so as to make it respond with a visible reaction to contact with so low a concentration as would not

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have caused any reaction before the onset of fatigue or sensitization.

4. That true allergic cutaneous hypersensitivity is specific in character, and that it may become manifest in the form of a dermatitis anywhere over the entire skin area some time after the initial contact with the allergenic agent and, usually, following a latent period of varying duration.

With reference to skin reactions caused by perfume materials, we are concerned, as a rule, with phenomena belonging in the last category, *i.e.*, those of allergic hypersensitivity. The type of dermatitis produced in connection with allergic or specific sensitivity differs from that produced by primary chemical irritants or fatiguing agents in that the former affects the subepidermal tissue, whereas the latter affects the epidermis, *i.e.*, the outermost skin layer (except, of course, in those cases where the intensity or rapidity of the action of a particular chemical irritant is such as to reach into the dermis following destruction of the epidermis).

It should be added at this point, for the sake of completeness, that allergic sensitivity to perfume, like any other form of cosmetic allergy, may be either created or intensified by a variety of predisposing factors. Thus, the allergic reactivity being highly individual may be transmitted by heredity. However, certain types of skin are more likely to respond with manifestations of sensitivity than others. This is true, particularly, of the dry or the senile skin both of which labor under a deficiency in the activity of the sebaceous glands and are thus deprived of the protective action of the sebum. An example, not entirely theoretical, would be that of a sensitive individual giving a specific skin reaction following exposure to perfume as an allergen acting via a route other than that of a direct skin contact (*e.g.*, by inhalation). External factors, too, are known to affect sensitivity, *e.g.*, temperature, humidity, season, etc. In general, the condition of health has an important bearing; and, finally, fatigue, emotion, menstrual difficulties, etc., may take their toll in an increased sensitivity, among other things.

Immunological Background

Before considering the sensitization aspects of perfume, we have to touch upon yet another basic principle, *viz.*, that of the mechanism of allergic reactions. While this is decidedly not the place for an exhaustive excursion into immunology, it is useful to refer here briefly to Ehrlich's "Side-Chain Theory" as applied to allergy. According to this theory, certain active cells in our bodies contain organic complexes, each complex consisting of a stable part to which are attached labile, reactive entities, the so-called receptors; only the latter are capable of entering into reactions taking place in the body. It is postulated that, if a foreign protein enters the normal organism, a combination takes place between it and the receptor, and that this event interferes with the integrity of the cell; the latter, in order to protect itself, drops the receptor which now attaches itself to the foreign protein and neutralizes its potential for harm. However, the loss of the single receptor stimulates the cell to a production of several new receptors which enter the body fluids where they circulate freely. They now bear the designation of antibodies; if the same foreign protein should re-enter the system they would combine with it and thus render it incapable of harming the cell. The foreign protein, whose systemic entry sets this series of reactions in motion, is called an antigen.

This sequence of events is characteristic of a normal organism, as indicated above. However, in the case of an allergic organism, it is believed that the antibodies are not detached from the cell complex to enter the circulation, but that they remain attached to the original complex thus inviting even greater injury to the cell by bringing a greater quantity of the offending protein molecules into intimate contact with it. The union of antigen and antibody releases histamine from the injured cell; the typical manifestations of allergic reaction are initiated by the liberated histamine. Incidentally, Ehrlich's theory is being referred to here not in an attempt to supply complete and up-to-date information concerning the mechanism of allergic reactions; it is intended merely to establish an illustrative connection with the findings and ideas described hereafter.

It was mentioned before that a true antigen is of protein character. Yet, it is known that various substances other than proteins can act as antigens. In fact, Landsteiner and Jacobs[1,2] have shown that simple organic chemicals can produce sensitization phenomena in guinea pigs, following intracutaneous injection or topical application to healthy skin. Among the several active chemicals are, *e.g.*, p-nitrosodimethylaniline and 2,4-dinitrochlorobenzene. With these two substances, a sharp reaction specificity has been obtained, in that an animal sensitized with the one chemical did not respond with a skin reaction to the application of the other. Nor did the animals rendered sensitive to either chemical show any increased reactivity toward related compounds such as p-nitrosophenol or dimethyl aniline.

p-Nitrosodimethylaniline 2,4-Dinitrochlorobenzene

The capacity of a simple substance to act as an antigen is assumed to depend upon its ability of combining with a protein whereby an originally "native" protein now becomes "foreign" to the organism. In the case of 2,4-dinitrochlorobenzene, the chlorine atom may be assumed to be *labile* so as to permit the dichlorophenyl group to attach itself to some basic group of the protein molecule. In other cases such as that of p-nitrosodimethylaniline, some change may be produced in the molecule after its entrance into the skin so as to impart to the changed chemical a capacity for producing an antigenic combination with proteins.

There are other cases of simple chemicals acting as antigens. To illustrate, Horsfall[3] observed sensitivity of rabbits to formaldehyde after immunization with formalinized proteins, while Haxthausen[4,5] produced a skin allergy to certain metals by means of their reaction products with horse serum.

Sensitization Studies

All of this is relevant to a brief but, in my opinion, highly significant report by Landsteiner in the matter of a perfume material, *viz.*, methyl heptine carbonate. Most of you will remember the mild excitement in the wake of a publication by Baer[6] some years ago who connected a case of lipstick dermatitis with the occurrence in the lipstick perfume of methyl heptine carbonate. Similar findings were made by Hoffman and Peters,[7] as well as by others. Alerted by these reports, Landsteiner and Jacobs[8] carried out a series of sensitization experiments which proved that guinea pigs could indeed be rendered specifically sensitive to this chemical, following several applications at weekly intervals of its dilute solution in olive oil, either in the form of an intracutaneous injection or in that of an inunction of the unbroken skin. The specificity of the imparted sensitivity was evidenced by the failure of other chemicals possessed of marked sensitizing capacity (*e.g.*, 2,4-dinitrochlorobenzene, 2-4-dinitrobenzylchloride, o-chlorobenzylchloride) to produce any significant reaction upon the skin of the sensitized animals.

While no attempt was made to demonstrate any reaction *in vitro* between methyl heptine carbonate and a protein, Landsteiner and Jacobs assumed that the former chemical was made to react *in vivo* with some protein so as to effect the latter's conversion into a specific antigen.

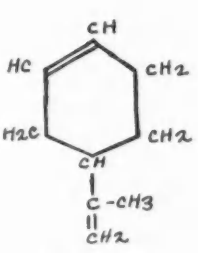
Thus far, I have referred only to examples of absolute specificity in sensitization. In addition to this, there exists also a group specificity which is evidenced in the case of chemically related substances capable of giving rise to antigen formation. In other words, if sensitization is achieved by a particular substance, a dermal reaction may be elicited by another substance structurally related to the sensitizer.

This introductory note is relevant to another series of highly indicative experiments carried out by Keil.[9] His interest had been attracted to this problem by some cases of dermatitis attributed to citronella oil which already had a record of inciting dermatitis in susceptible individuals when used, *e.g.*, as a mosquito repellent.[10] The patient who was found originally to be sensitive to citronella oil was now patch-tested with oil of lemon; again he responded with a positive reaction. In an endeavor to ascertain the offending principle, Keil applied one per cent solutions of several constituents of citronella oil; he obtained strongly positive reactions with citronellal, and weaker positives with citronellol, citral, geraniol and geranyl acetate. The same results were obtained in two other cases.

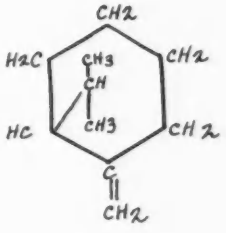
In order to make sure that the patch test results were characteristic of specific hypersensitiveness, Keil applied lemon oil as well as the several single compounds listed to twenty-six control subjects afflicted with different skin ailments totally unrelated to the citronella oil type of dermatitis. Negative responses were obtained in twenty-three cases, and mild positive responses in three cases. This finding supports the postulate of specificity of the substances tested, in a most convincing manner.

One of Keil's patients, who was sensitive to oil of lemon, was found to give a positive reaction also with oil of turpentine. Because of this, tests were run on this individual with solutions of alpha- and beta-pinene. Positive reactions were obtained with both isomers, beta-pinene being by far the stronger agent. The latter is a close chemical relative of limonene, and so we have the explanation for the sensitivity in this case to both lemon oil and turpentine.

In comparing the structural formulas of limonene and beta-pinene, one observes that both have an exposed methylene radical; their reactivity resulting in eventual sensitizing action might well start at this point.



Limonene



Beta-pinene

It was mentioned above that the aldehyde, citronellal, appeared to act as the primary allergen of oil of citronella. The synthetic hydroxycitronellal also produces a positive reaction although somewhat weaker. The unsaturated alcohol citronellol is a strong reactant possibly because of its similarity to citronellal with regard to the end position of a methylene group which we found also in the case of limonene and beta-pinene. By contrast, geraniol gave only a weak reaction in spite of its unsaturated character, and the same is true of citral which is in the same relation to geraniol as citronellal is to citronellol; the reason is possibly to be sought in the substantial absence of a reactive methylene end group in geraniol as well as in citral.

$H_2C = CH(CH_3)\cdot CH_2\cdot CH_2\cdot CH_2\cdot CH(CH_3)CH_2\cdot CH_2OH$

Citronellol

$H_3C\cdot CH_2\cdot CH_2\cdot CH_2\cdot CH_2\cdot CH_2C(CH_3) = CH\cdot CH_2OH$

Geraniol

In addition to the relationships between chemical structure and sensitizing action of some individual compounds, Keil's work suggests the existence of group reactivity, in that persons sensitive to oil of citronella will be equally unable to tolerate exposure to the essential oils extracted from the other members of this botanical family, such as the oils of lemongrass, palmarosa, gingergrass, etc. However, the cross sensitivity may extend to oils of unrelated botanical origin whose chemical composition bespeaks their reactivity, such as oil of Eucalyptus citriodora (consisting almost entirely of citronellal).

A reported case of dermatitis caused by oil of geranium[11] probably belongs in this chapter, also a case of cheilitis due to the presence of geranium oil in a lipstick perfume.[12] Some evidence points to the reduced sensitizing action of terpeneless oils.[13]

Miscellaneous Reports

Unfortunately, but a very few papers have been published permitting a systematic insight into the subject of our discussion. Most of the other papers are essentially case reports identifying perfume or perfume ingredients as sensitizing agents, or else some "wholesale" reports of tests performed in a manner virtually precluding either theoretical or practical utilization of the information obtained.

Following are some reports belonging in the former category:

One of the earliest papers by Freund[14] deals with the so-called Berloque dermatitis, a condition attributed to the use of the classical type of Eau de Cologne. The inciting agent appears to be bergamot oil. However, Berloque dermatitis and the concomitant skin pigmentation are not the sequelae of a simple sensitization, but rather the results of a combination of factors in which irradiation by sunlight plays an essential role. This condition has been observed and reported upon by several investigators, both in this country and abroad.[15-21] Rogin and Sheard suggested that chlorophyll or some adulterant may be responsible,[22] but this is not in agreement with the findings of Giraudeau and Acquaviva[23] who definitely exclude chlorophyll, also linalyl acetate as causative agents although they did demonstrate that oil of bergamot sensitizes to visible light within the range of 3900 to 6000 Angstrom units, *i.e.,* from the violet to the yellow part of the solar spectrum. According to Goodman,[24] the presence of traces of copper in the oil, originating from the copper containers in which oil of bergamot is shipped, is necessary for the sensitization reaction to take place. An interesting observation by Urbach and Kral deserves mention at this point, *viz.*, that internal ingestion of vitamin C prevents photosensitization by oil of bergamot.[25]

It is known now that oil of bergamot does not stand alone as a factor in photodermatitis. Other essential oils, both of the citrus type as well as those belonging to other categories, have been recognized as photosensitizers. Among them is oil of lime which causes pigmentation upon exposure to sunlight. As shown by Sams,[26] the pigmentogenic action appears to reside in the longer wavelengths of the ultraviolet radiation, just below the zone of visible light (3100 to 3700 Angstrom units). While the nature of the photocatalytic agent remains undetermined, doubt is raised as to the participation of copper as suggested by Goodman in the case of bergamot oil, since the reaction is produced with freshly expressed or extracted oil.

If one concedes that essential oils may act as irritants then Peck's[27] observations are relevant to the phenomenon of pigmentation since it has been shown that the latter can be produced without the contributory factor of sunlight.

Oil of neroli is a photosensitizer, as is oil of petitgrain.[28] Although of lesser significance in perfumery, oil of cedarwood acts in a similar manner producing a photosensitization type of dermatitis,[29] sometimes associated with pigmentation.[30]

Oil of lavender has been identified as the cause of sensitization dermatitis by Finkenrath,[31] and pigmentation of the skin following topical application has been reported by Szánto.[28]

Other essential oils suspected or accused of sensitizing capacity are the oils of rosemary, angelica, cassia, calamus, eucalyptus, orange, anise, bay, bitter almond, cade, ylang-ylang, carrot seed and linaloe[32]; with respect to the last named oil the capacity for sensitization may reside with *l*-linalool which, like the sensitizing citronellol, has a methylene group in an end position.

$H_2C = CH(CH_3)\cdot CH_2OH\cdot CH_2\cdot CH = C(CH_3)_2$

l—Linalool

As to oil of orris, it seems that most objections to its use stem from the well recognized allergenic character of orris root which in dried and powdered form had been used, some time ago, as an ingredient of face powders and other cosmetics. No cases of allergy appear to have been reported as being directly associated either with oil of orris or with orris concrete.

The selective action of an essential oil in creating a limited area of dermal response to its sensitizing effect has been reported by Cummer.[33] His patient was in a habit of dropping some cinnamon-flavored liquid dentifrice in the palm of his left hand, and picking it up with a toothbrush; the excess was allowed to run off between the fingers to the dorsum of the hand. An erythemato-vesicular eruption occurred in the interdigital spaces of the hand, but, at no time, was there any evidence of irritation of the mouth, lips or face. Patch testing with the ingredients of the dentifrice confirmed the causal involvement of oil of cinnamon and, incidentally, elicited a mild positive reaction to oil of spearmint.

Some perfume materials have the bad reputation of being irritants or sensitizers although the pertinent information appears to be more putative than experimental or clinical in character. This comment applies, *e.g.,* to eugenol and isoeugenol concerning which little directly applicable information is available.[34-36] Incidentally, isoeugenol (4-propenyl guaiacol) is thought by some to be less of an offender than eugenol,[37] while others would like to see its use avoided.[38] Since both eugenol and isoeugenol are phenol derivatives of comparatively low molecular weight, it is conceivable that in concentrated form they might have an untoward effect upon the skin; the same would be true of the carnation or spice type of perfume compositions in

which either or both might occur. It is questionable, however, whether this has any direct relevance to their employment in scents for creams, soaps, etc. Reference has been made above to the molecular weight of phenol derivatives because it is known that the toxicological action in the series of phenol homologs decreases as their molecular weight increases.[39]

Heliotropin has been implicated as a possible cause of dermatitis,[40] and its use in lipstick perfumes is being discouraged.[41] Skin irritant action has been attributed to methyl anthranilate.[41]

A somewhat special position is occupied by oil of wintergreen, consisting substantially of methyl salicylate, because of its ready penetration through the skin. According to Macht[42] and Harry,[43] however, this oil is not unique in its penetrating capacity; other essential oils, too, are effective penetrants with a potential for physiologic or pathologic effects.

There are also some case reports of reactions to finished perfumes. Thus, Tobias[44] mentions one such case in which a well-known perfume caused dermatitis after prolonged usage. In connection with this case, he stresses the applicability of the antigen-antibody principle in view of the occurrence of an incubation period of six months which finally ended with a cutaneous display of acquired hypersensitivity. A case of dermatitis attributed to a jasmine bouquet type of perfume was reported by Bloom.[45] In this case, the offending agent was found to be benzylidene acetone. Von Varga[46] presented a case of hypersensitivity to a hyacinth perfume. A report by Feiler is interesting as well as amusing because, in this case, the offending perfume was one distributed by a house specializing in "hypoallergenic" cosmetics.[47]

The type of paper referred to before which offers but little by way of utilizable information is that by Patterson and Hall,[48] subsequently expanded by Katz.[49] These papers merely list a whole series of essential oils and aromatic chemicals which were applied either in pure form or (in the case of crystalline substances) in the form of saturated alcoholic solutions, under a closed patch, to the inner portion of the lower arm. The results indicate at best that most of the essential oils and aromatic chemicals tested should not be regarded as primary irritants although some of them did produce a skin reaction in isolated instances. In some cases, as, *e.g.*, in that of methylnonylacetaldehyde, a cutaneous reaction may appear in one to five days following application. It is regrettable that this type of study has not been enlarged in scope; certainly a single application of a number of undiluted perfume materials to the human skin bears hardly any relevance to the problem with which we are concerned here.

Odors as Allergenic Agents

A special position is occupied by the allergic phenomena elicited without direct exposure of the skin to the sensitizing action of perfume or of perfume ingredients. It is well-known that the scent of certain flowers, such as roses or lilac, may cause sneezing or rhinorrhea in sensitive individuals, and there is adequate evidence in support of the contention that this is due to some volatile components of the floral oil rather than to pollen.[50] Urbach[51] demonstrated the existence, in some cases, of a purely nasal hypersensitiveness to the essential oils of lemon, orange and tangerine, also to oil of pine needles without any concomitant cutaneous response; in other cases, nasal and cutaneous reactions were found to run parallel.

Evidently, infinitesimal traces of some odoriferous materials possess the allergenic capacity of eliciting both respiratory and dermal responses. Very little pertinent information has come to light from the field of perfumes although, judging by the observations reported with other smells, odor hypersensitivity should be encountered more commonly. As to some of the related phenomena, reference may be made here for illustrative purposes to the reported cases of a hypersensitiveness to the smells of coffee[51] and of certain vegetables[52] producing severe respiratory or cutaneous symptoms.

It is of possible interest that, in one case of hypersensitivity to the scent of locust blossoms, desensitization of the patient could be effected by feeding of a seventy-two hour enfleurage of these blossoms in lard over a period of two weeks. This procedure prevented the severe "hay fever" symptoms from which the patient had been suffering previously, in spite of almost continuous exposure as occasioned by living in a locust grove.

Concluding Remarks

The several illustrative instances presented may furnish an idea as to the probable size of the field to be explored. I am aware that they are apt to raise more questions than they can answer because they indicate how little, rather than how much, is known. By way of listing just a few examples of what needs to be learned, let me remind you first of the very small number of perfume materials studied to date for their irritant or sensitizing potentials, and of the concentrations in which these potentials become manifest in the form of visible dermatitis. In this connection, hardly anything is known concerning the existence of sensitizing synergisms or antagonisms of groups of perfume materials (floral and essential oils, aromatic synthetics, etc.) which are, of course, the fundamental entities of all perfume formulas. Let me point next to what must be a marked difference between the transitory or fugitive effect of the application of a perfume or toilet water on one hand, and the fixation of a perfume to the skin by means of some vehicle such as a cream, a lipstick, a face powder, etc., on the other. Let me emphasize that hardly anything is known concerning the influence of the various cream and emulsion types upon the dermal effect of the many perfume ingredients with which they may be scented; in this connection, there come to mind studies on skin absorption such as those carried out by Harry[43] which might well lend themselves for adaptation to the problem under discussion, especially in view of his finding that certain essential oils show the greatest capacity of skin penetration, greater than that shown by the most active vegetable and animal oils or fats studied. And what about the possibility of a contributory effect of perfume in the case of cosmetics with admitted dermal action such as antiperspirants? Since soaps and detergents are now known to affect skin

morphology and physiology, what added effect is produced by the perfume in these vehicles, and how should one select a perfume for them? The number of open problems is really legion.

In his endeavor to eliminate allergenic or sensitizing ingredients from his formulas, the cosmetic chemist has been, on the whole, quite successful. However, the perfume presents a problem both *per se* and as a component of cosmetic formulas; there is a general feeling that where cosmetic sensitivity is encountered perfume is quite likely to be involved.

The evidence in this matter may appear to be more indicative than supportive at the present time. The reason for this is to be sought in the dearth of published relevant information, which is due, in turn, to the comparative mildness and transitoriness of the dermal symptoms offering but a moderately interesting stimulus to the average dermatologist who is, therefore, more likely to be attracted by true skin pathology as an object of intensive study. The complexity of the perfume formula is also apt to act as a deterrent.

You are familiar with the term "hypoallergenic cosmetics." To the extent that in its strict meaning this term implies freedom from acknowledged or suspected allergenic agents, it could probably be applied to any cosmetic preparation formulated by an informed chemist and produced under proper sanitary manufacturing conditions. Yet cosmetics marketed specifically under the "hypoallergenic" designation are usually made available perfumed as well as unperfumed, with an increasing trend toward the latter type as fostered by some dermatologists and allergists who have become aware of the perfume's capacity for sensitization, and who now wish to exclude this apparently significant source of allergic reaction. It would seem to me that this situation should furnish the producers of perfumes with considerable food for thought.

In conclusion, may I say that this presentation was not intended as a complete coverage of available data, no matter how scanty and inadequate such data may be for systematic utilization. May I also refer again to what I said in my introductory remarks, *viz.*, that on a purely statistical basis neither the cosmetic chemist nor the perfumer is facing a crisis, since perfume dermatitis due to sensitization is both extremely rare and readily gotten rid of. However, if we do not want the subject of perfume hypersensitivity simply to vanish in a statistical sea, if, instead, we wish to extract heuristic information which would be interesting as well as helpful to all concerned, *i.e.*, patient, physician, chemist and perfumer, then it will behoove us to encourage the kind of investigative research which will bring more light into this largely obscure domain.

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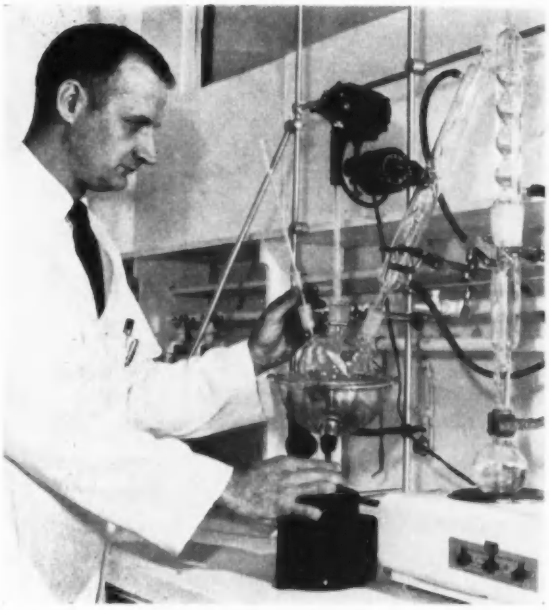

Dr. Manno F. Nelson in the Colgate-Palmolive Co. laboratories.

Study based on a conference at Asociacion Farmaceutica y Bioquimica, Argentina

Tooth Paste:

A Strange Alteration

Dr. ANDRES E. CABONA*

THE alteration of a tooth paste which we are going to describe was observed in a factory which has been manufacturing dentifrices for many years.

According to established rules, every raw material must be analysed when entering from providers, and from each batch of tooth paste two filled-in-tubes samples must be sent to Control Laboratory in order to check and approve them before being delivered to the market.

At this instance, in the content of several batches, brownish spots were observed and even more, the tooth paste smelt of sulphide.

The remaining batches were immediately controlled when still in their stainless steel tanks, being found in perfect condition. Owing to this circumstance it was suspected that the sulphide was in the tubes; so they were thoroughly analysed but only non-important vestiges were found in some of them. The tubes were tin-coated and both tin and lead of first quality.

Suspecting that sulphide might have been in the filled tubes but not in the empty analysed ones, tubes from another supplier were filled and again the spots were observed. With the same dentifrice tin and aluminum tubes were filled, and always the same phenomenon could be observed.

From these experiences we arrived at the first conclusion: The containers are not the direct factor of the spots, but their presence is necessary to the phenomenon.

It was also considered as a possibility that a sulphide from a near by depilatory might have been poured into the batches containing dentifrice, but a strict analytical research proved negative.

The whole mechanical equipment was examined, trying to detect any deterioration that might have liberated sulphide, but this investigation was also negative.

The next step was to look for sulphide in the tooth paste that remained in the stainless steel storage tanks and which, up to this time, had had no alterations; but from thirty batches only twelve showed sulphide vestiges.

Next, several tubes were filled with the paste of every batch and it was observed, after some days, that dentifrice coming from those tanks which had shown sulphide, showed stains while the rest remained in perfect condition.

By this experience it was evident, as the second main conclusion, that the spot factor lay in the tooth pastes which had proven sulphide vestiges.

Then, the raw materials were re-analysed with a more sensitive technique in order to test sulphide, thus obtaining the following results:

Calcium carbonate	=	Sulphide vestiges (some bags) " negative (other bags)
Glycerin	=	" negative
Binder	=	" negative
USP soap	=	" negative
Sweeteners & Flavours	=	" negative
Tin-coated tubes	=	" vestiges (some tubes) " negative (other tubes)
DENTIFRICE IN TUBES	=	GREAT ABUNDANCE IN SULPHIDE
Same tooth paste in storage tanks	=	Sulphide vestiges (some tanks) " negative (other tanks)

This indicated that calcium carbonate might be the principal factor of the alteration, but it was hard to

* Biochemist, Buenos Aires, Argentina, S. A.

understand how the total amount of sulphide vestiges in only two of the components might produce such a great quantity of sulphide into the filled tubes.

Therefore, we started thinking that some impurity must have been within calcium carbonate which was impossible to detect by means of our current testing standards.

When testing acid insoluble with 50 g. instead of 5 g., as it is stated in U.S.P. XIII, a yellowish tint and a troubling were observed and then a precipitate. When analysed, the latter proved to be sulphur, being the enigma thus solved. This sulphur, when contacting other dentifrice ingredients and tube, became sulphide. To check the former supposition, the following blend was prepared:

$CaCO_3$	40 g.
H_2O	60 g.
S	2 g.

This blend, while contained in glass, did not produce sulphide. When in tubes and after a few days, the blend deteriorated with sulphide production.

At the same time another experiment was being carried out, consisting of adding sulphur 2% to a normal tooth paste. This paste poured into glass did not show any sulphide vestige but, when filled in tubes, quickly deteriorated even more quickly than the former blend.

Later it was known, following an investigation, that calcium carbonate, when still in suppliers' hands, had been in storage with a lot of bags containing sulphur and which were piled up in the surroundings. The fact that some bags of these raw materials were pierced, allowed the sulphur powder to mix with the calcium carbonate but in such small quantities so as to make it impossible to detect them by sight.

Theoretically, calcium carbonate containing 32 ppm. of sulphur, may free 22 mls. of hydrogen sulphide gas, hence the great danger of these trace odors.

We interpret the chemical reactions in this way:

$$\underset{\text{(soap)}}{\text{R. CO.O}^-} + \text{OH.H} \rightarrow \text{R. CO. OH} + \text{OH}^-$$

When soap hydrolizes, it frees alkalies, giving place to a pH about 10. In this alkaline medium, metals Sn, Pb and Al have the tendency to be transformed to cations and S to anion S=,

$$\begin{array}{l} \text{Sn} - (2e) \rightleftarrows \text{Sn}^{++} \\ \text{S} + (2e) \rightleftarrows \text{S}^{--} \\ \hline \text{Sn} + \text{S} \rightleftarrows \text{Sn S} \end{array}$$

S= combines itself with the metals in the tubes giving birth to the correspondent metallic sulphides, which stain the paste.

The same thing happens with Pb and Al, but with the latter H is produced which can be observed by the swallowing of tubes:

$$2\,\text{Al} + 2\,\text{OH}^- + 2\,\text{H}_2\text{O} \rightleftarrows 2\,\text{Al O}_2 + 3\,\text{H}_2$$

With the blend of $CaCO_3$, H_2O and S, reaction is of less intensity because the medium is less alkaline, about pH 9.

The base is produced by hydrolysis of $CaCO_3$:

$$\text{CO}_3^{=} + \text{OH.H} \rightleftarrows \text{CO}_3\,\text{H}^- + \text{OH}^-$$

Conclusion

Sulphur traces in a calcium carbonate, used in a tooth paste and filled in tin-coated tubes, may produce an alteration which expresses itself by dark spotting and an intense hydrogen sulphide smell.

Display Life Expectancy

THE majority of displays are produced in expectancy of long life. This holds true of the simplest paperboard card, which may be left in a store window or on a shelf for months, performing an unexpectedly long selling job. For that reason, manufacturers attempt to make nearly every display unit one which can stand on its own for months if need be and at the same time flexible enough to be used serially or in harmonious combination with our promotional units.

Some display pieces are meant to be changed frequently, allowing great variety in sales messages, advertising themes and seasonal or special-promotion impact. The chief material of construction here is paperboard, well conceived in design and well put together. Other displays incorporated changeable copy cards and seasonal motifs into a more permanent construction which will encourage long-term use by the retailer. Many materials are used in such displays, which also feature light-and-motion mechanisms or other special constructions. Itinerant displays are meant for repeated assembly, disassembly and shipment. Most often they use wood, plastics, metal, plug-in-type electrical mechanisms and complicated designs to achieve panoramic or architectural effects.

In any case, every good display is well constructed for the type of sales aid it represents.—*Modern Packaging.*

Cosmetic Excise Tax Collections

COSMETIC excise tax collections in 1952 and 1953, and through May, 1954 are given in the following table:

	1954	*1953*	*1952*
January	$ 8,147,000	$13,123,480	$11,547,853
February	29,489,000	13,859,961	14,338,420
March	1,957,000	7,805,077	7,248,879
April	6,503,000	9,236.101	8,218,865
May	20,733,000	9,286,470	9,174,622
June	—1,662,000*	8,876,000	8,253,649
July	4,323,000	9,996,000	9,357,443
August	582,000	5,964,000	8,849,488
September		370,000	8,523,241
October		8,204,000	8,439,370
November		19,912,000	7,878,976
December		536,000	10,432,117

It may be noted that cosmetic tax collections beginning with September, 1953 appear to follow an irregular course. This is due to the change in the system for collecting these taxes on a quarterly instead of on a monthly basis.

*Negative amounts in monthly totals are due to revisions of amounts for earlier months.

Quality Control of Dentifrices

Possible methods of controlling dentifrice raw materials and finished toothpastes

PIERRE VELON, Ph.D., C.E., E.C.I.L.*

Photo courtesy The Lambert Company, Makers of Listerine ANTIZYME Tooth Paste

CONTINUOUS testing and control is a paramount necessity in cosmetics, as in any other type of chemical production.

Control of Raw Materials

The ultimate quality of the finished product must be the decisive factor when raw materials are being tested. Thus, the powdered chemicals incorporated into tooth pastes (such as, for instance, calcium carbonate) must be sufficiently abrasive while the same chemicals, if intended for use in face powders, must be fatty in consistency, and as light as can be procured. The standards established for each raw material are, therefore, flexible; they have been adapted to suit specific requirements and the final use the product is meant for. Thus, commercial calcium carbonate comes in two grades; "light" for face powders, and "heavy" for dentifrices.

1. Powdered Raw Materials

Hardness: The powders employed in dentifrices are classified by hardness. The scale of Mohs is applied in which talc is named as the softest mineral and assigned No. 1, while the diamond carries No. 10. The usual cosmetic raw materials may be listed as follows, by order of increasing hardness:

Talc	1.0–1.5
Kieselguhr	1.0–1.5
Mica	2.5–4
Boric acid	3
Pumice stone	6
Titanium oxide	6 –6.5
Quartz	7

The hardness of the dental enamel is 7, that of the dentine is 5; therefore, abrasives having a hardness in excess of 5 should be excluded from tooth paste manufacture.

Abrasive power: (After DeNavarre.)[1] The hardness of a product is not always directly related to its abrasive power. This has been illustrated by industrial testing machinery which consists of a disk rotated at a specific speed, while an accurately weighted metal block is placed against it. The powder to be tested is sprayed on to the disk and, after a specified period of time, the metal is weighed again. The number of milligrams lost in weight is the index of abrasion under testing conditions. The metals used in this instance are antimony (hardness of 2.5–4), copper (2.5–3), silver (2.5–7) and special alloys. Depending upon the raw materials, the weight loss through abrasion is determined after 1000, 2500, or 5000 rotations.

Wright and Fenske[2] have duplicated the practical conditions under which dentifrices are employed by testing the abrasive power of specific compounds on the enamel and dentine of freshly extracted teeth. They assigned a value of 100 to precipitated calcium carbonate and established an index which rose from 38 for certain tribasic calcium phosphates, to 1143 for a technical grade of the same chemical, while magnesium oxide carried number 121. Comparison of this method with the grinding of antimony on a powder-coated disk shows that variations in abrasive power, as exemplified on various media, will rise and decline in the same direction without being, in any way, directly related to each other. However, remarkable contradictions to the

*The author in cooperation with Mr. Colson, president of the Societe Francaise de Cosmetologists and Mr. Norelle, Chem. Eng., has just published the fourth volume of Cerbelaud: Precis de Cosmetologie, which deals with the established methods of analysis and control of raw materials employed in cosmetic products; surface active agents and permanent waving compounds. Translated from the French by Margaret Neurath. Originally published in La Parfumerie Moderne, May-June, 1953.

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above exist. Thus, the abrasion stated on natural teeth was less with dibasic calcium phosphate and higher with magnesium carbonate while, on an antimony block, dibasic calcium phosphate proved the more powerful abrasive.

Minor traces of impurities in a raw material will suffice to streak the dental enamel. DeNavarre has described a quick qualitative test in this instance: on a clean plate of glass a little of the product to be tested is applied and, with the edge of a coin, rubbed on to the glass surface. If microscopic examination shows any streaks on the glass, the abrasive must not be employed in dentifrices. A test on the real teeth must not scratch their surface. As to the carbonates, these are dissolved in chlorhydric acid for testing and the residue precipitated—if any—is tried out on the glass plate, as indicated above.

Apparent density: Another characteristic property of the powdered dentifrice raw materials is their apparent density. This constant depends on porosity and the fineness of the particles. If a powder is lighter or heavier than a standardized sample it will absorb more or less liquid, which means that it will yield tooth pastes of different compactness, or, fluidity. The Toilet Goods Association of America has standardized the following method of determining dentifrice consistency: 40 grams of powder are placed in a test tube of 250 cc. which is dropped 50 times from a height of 50 mm, at a sequence of 2 drops per minute. Individual operators will get constant results differing only by 5%, by this method. This practice of determining consistency is accurate enough for all practical purposes.

Where very light powders, such as magnesium carbonate, are employed, better results will be achieved through measurement by volume, rather than weight: a test tube of 250 cc. is simply filled under predetermined conditions, and weighed.

Fineness: The fineness of powders can be quickly measured by the Toilet Goods Association's standardized method No. 7, namely, flocculation by a current of water through a sieve of predetermined mesh number, and weighing of the residuous matter that proved too coarse to pass. For dibasic calcium phosphate, method No. 44 was developed by the T.G.A. Here, the powder is flocculated with alcohol and passed through a series of sieves. After thorough drying, the residuous matter is weighed.

A higher grade of accuracy is achieved where sedimentation methods are employed which permit the tracing of granulometric curves. One difficulty encountered here is, that for each raw material a suitable liquid must be found which will disperse the agglomerated particles and effect a rapid settling process. The author has described a suitable method in "Industrie de la Parfumerie."[3] DeNavarre has suggested that castor oil should be employed in order to classify calcium carbonate by the granulometric method.

Paste formation: Where dibasic calcium phosphate is used the stability of the paste is measured by the aid of an acqueous solution of glycerine. The paste is heated and subsequently cooled. Upon re-examination, its consistency must remain unchanged (T.G.A. method No. 46).

With calcium carbonate the shock point is measured after T.G.A. method No. 15. This is determined by the

quantity of water that must be added to give the paste a special consistency which, under agitation in a test tube, produces a characteristic kind of sound. A complementary test serves to determine the liquefaction point, i.e. the quantity of water that must be added to make the paste flow under its own weight.

2. Humidifiers

The usual humidifier included in dentifrices is glycerine; its standards, as established by the T.G.A., are those of the American Pharmacopeia. However, instead of employing the ancient analytical procedures using triacetine or bichromate, it is indicated for quickness' sake to introduce the new method developed by Malaprade and recently modified by Colson.[4] This employs oxidation, destruction of the excess matter with propylene glycol, and titration of the formic acid in the presence of red cresol bromide.

Sorbitol in acqueous solution, which is also included as humidifier, was standardized in T.G.A. specification No. 36.

3. Foaming Agents

The foaming agents in dentifrices are soaps, and sulfonated oils.

For several years the sulfonates stayed out of tooth paste production because of their bitter taste. At present, some alkyl sulfates are being made which are, practically speaking, tasteless in the indicated dosages.

Two methods are in use to establish the rate of the alkyl sulfates. After Wurzschnitt, quantitative hydrolysis under acid conditions is indicated with subsequent titration of the increase in acidity. The fatty alcohols are, then, extracted with ether and their rate is established in relation to the acid content.—Another indicator is the bromide of cetylic pyridinum which is used in the presence of chloroform and methylene blue to establish the rate of alkyl sulfonates present in a specific compound. Etienne et al. have described these testing methods.[5]

The alkyl aryl sulfonates present in a dentifrice can be determined by Jousselin's method.[6]

The sulfonate is converted into phenol which is brominated. The brome that has not reacted is titrated through iodometric determination. Provided that the fatty alcohols have, first, been extracted with ether, this method will serve to establish the rate of alkyl aryl sulfonates in the presence of alkyl sulfates.

4. Binders

The binders employed in dentifrices are mucilages of tragacanth, pectine, methyl or carboxymethyl cellulose, of the alginates, and starchy glycerates. The rate of tragacanth is established by checking the product's content in karaya gum by measuring the viscosity of the gel to which borax has been added; further, by establishing the dextrine rate through determination of the gel viscosity in the presence of iodine; and, finally, by computing the arabic gum ratio as indicated by the blue tint produced by benzidine addition. The viscosity of a 12% gel, measured by the ball method, is an important characteristic.[7]

The content in methyl cellulose and carboxymethyl cellulose have been standardized by the T.G.A. who also published methods destined for computing their ratios.

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If bentonite is employed as a binder it must not include any particles that are too hard and would scratch the enamel. Bentonites are classified by their whiteness in acqueous suspension, and by the consistency of their 3% and 5% gels.

5. Additives

Among the additives favored in recent years the sulforicinates range first. By this name, mixtures of acid and neutral sulforicinates are commercially known. Their characteristics have been studied by Lachampt[8] who developed the following control methods: To acqueous solutions of sulforicinate, soda is gradually added, so that clear zones and troubled zones will form in the liquid. Thus, characteristic graphic borderlines result, which separate the acid sulforicinates from the neutral ones, and also indicate the zones where both components hit upon each other. The curves formed are characteristic for the specific qualities of sulforicinates tested, and they must be identical each time for the same grade.

One of the most fashionable additives to tooth pastes is chlorophyll which has been examined and fully described in a previous study. Its bacteriostatic, odor destroying and healing action is of value in dentifrices of all the brands employing it in their formulas.

6. Sweeteners

The sweetening agents (saccharine, dulcine) added to dentifrices, and the antiseptics, such as the para-oxybenzoates, are classified by purity after an examination of their typical reactions and of their melting points.

Control of The Dentrifrice Paste

While one paramount requirement of high-class dentifrices is the inclusion of pure raw materials, another one demands that each batch must be equal in quality to the preceding ones.

In order to control the continuously unchanged quality of a product, the hardness of the paste should be tested. Modern laboratories will either use the Tirantometer developed by Mahler, or the Penetrometer recommended by the A.S.T.M. Both of these laboratory tools permit the study of all variations and deviations of consistency, including those which may occur through aging.

The Tirantometer by Mahler,[11] and measurement of the fiber length, furnish all data concerning the consistency of the paste and its appearance when it is being squeezed through the tube end.

As to technological tests we may say that the abrasion of a finished dentifrice should be measured by the same procedures as used in testing the raw materials which it holds; i.e. by the techniques described in our paragraph on the control of dentifrice raw materials.

To test the polishing power of a tooth paste, Tainter[13] employed a Tungsten lamp of constant power whose light ray was reflected on a real tooth and directed to hit a photo-electric tube. The tooth was, first, rubbed with pumice and, then, cleared of its enamel by the application of chlorhydric acid. The curve of light intensity reflected by the tooth, as a function of the angle of incidence, was traced. As a second step, the tooth was polished with a brush and the dentifrice to be tested, and the same type of curve, under the same conditions, was traced again.

Among the chemical tests, a highly important one was designed to establish the water content of a dentifrice, by checking the washing action exerted on it by the use of toluol; while the glycerine rate was computed after studying the washing action of decaline; and subsequent refractometric measurement as developed by Palfray.[12] The rate of insoluble powders can be established through calcination and weighing of the residues.

Ammoniated dentifrices are another recent development. Breuer and Schreiber[10] have indicated a useful method for their chromatographic analysis, by employing cation-active resins which attract the ammonia salts and filter out the urea. Through urease, the urea is, finally, converted into ammonium carbonates, on which the exact rate is, subsequently, determined.

The ammonium is drawn from the calcium column. The ammonium chlorides, treated with a chlorinated solution of formaldehyde, yield hexamethylene tetramine and free chlorhydric acid which can be titrated with soda. This method of analysis is faster than the distillation of ammoniac in the presence of soda.

Conclusions

We have enumerated some of the possible methods of controlling dentifrice raw materials and finished tooth pastes. It is unnecessary in practice to employ all of these in the commercial manufacture of a good product, but most of the procedures indicated above have been found useful in general and each individual establishment ought to develop them according to its own requirements.

It should be kept in mind that the progress of the entire toiletries business hinges upon the unswerving quality control exerted in its laboratories. The published results of their testing methods help to maintain and improve the established brands, and to supply the market with cosmetic products of consistent scientific quality.

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Unquestionably, there is progress. The average American now pays out almost as much in taxes alone as he formerly got in wages.

H. L. Mencken.

The place to stop drunken drivers is at the bend of the elbow . . . not at the bend of a highway.

Cincinnati Enquirer.

Some people seem to fall for anything, and stand for nothing.

Hampton Script

Christmas Joy and New Year Happiness

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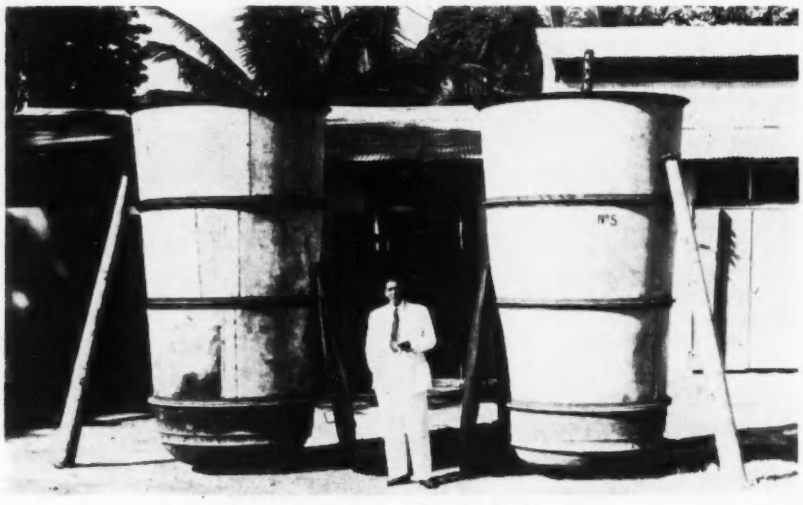
Lime Oil Distilled, produced from whole fruit . . . Its manufacture . . . Its characteristics . . . Author urges new legal standards of Haitian lime oil distilled to include this new class of oil



The author amongst a pair of distillation stills

LOUIS DEJOIE:

New Type

Haitian Lime Oil Distilled

HAITI for a little more than a decade has been shipping Distilled Lime Oil on a commercial basis. The average annual shipments vary approximately around 20,000 lbs. Some expressed lime has also been produced but is now discontinued on account of a limited regular market and low prices. The statistics for the last 10 years indicate a certain stagnation in the production. Price upon the American market however has a definite influence upon production. Sixty percent of the fruits crushed come from peasant gardens where they are grown for the family use, as are the mangos advacados, bread fruit, and plantain. So the higher the price of the oil fob, the higher is the price paid to the peasant for his fruits and the higher is the production of oil. This simple principle applies also to coffee, petitgrain, castor beans, tumeric etc. Regular plantations of lime are still limited to the Island Ile à Vache in the Dpt. of the South. Wittertip disease and scale insects among other pests are the adverse factors, besides poor soils (soil failure) that prevent the increase of the plantings. Very little fruit is shipped from Haiti. The juice after distillation is wasted.

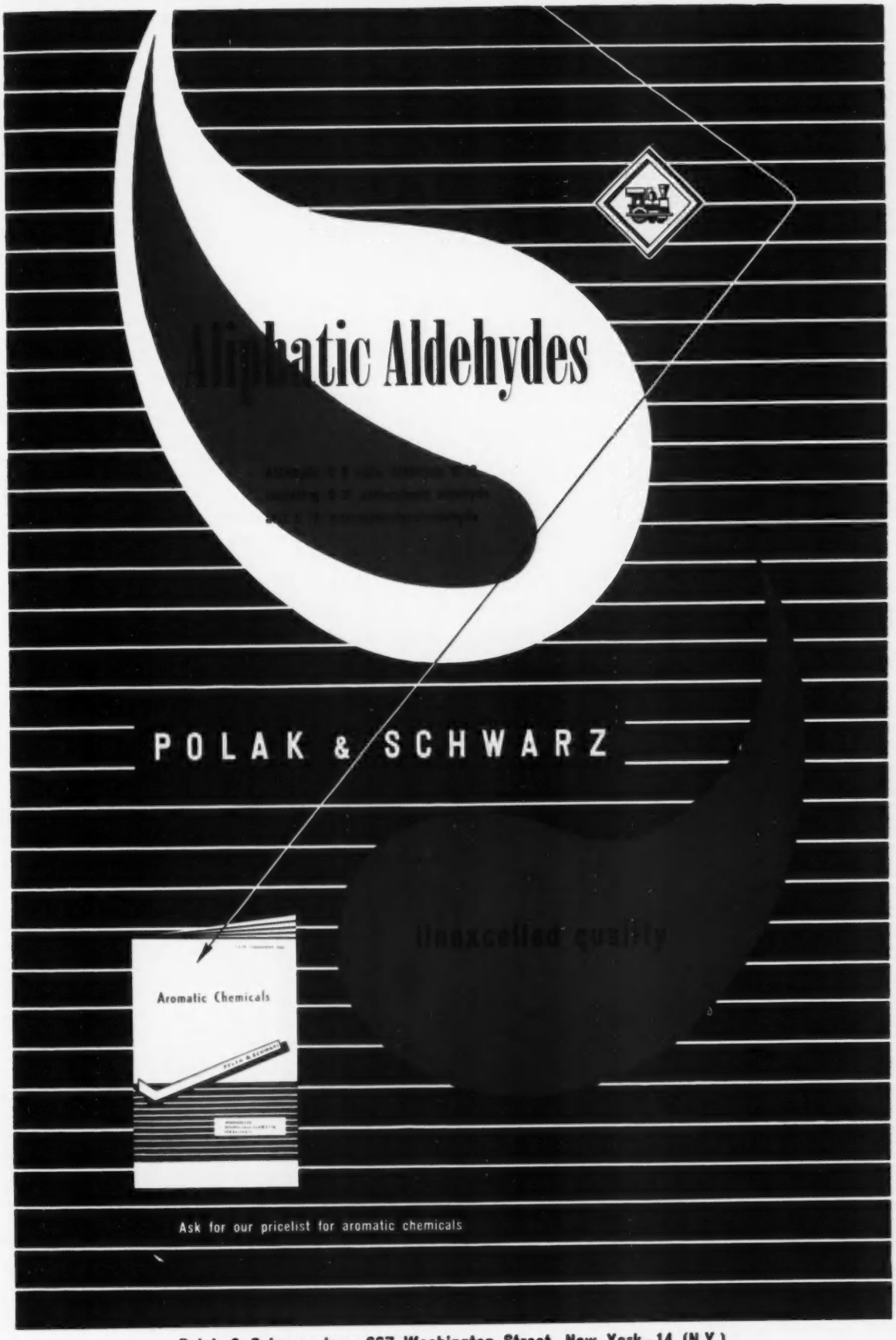
Haiti Lime Oil Distilled is sold amost exclusively to the U.S.A. The main crop matures between May and August, depending upon the earlyness of the spring rains. There is a small crop in September.

Distillation

Oil Lime Distilled has been produced in Haiti under the conventional method of pressing the juice from the fruits in roller mills; they are generally old sugar cane mills. The juice contains the oil in suspension and is distilled in copper stills to remove the oil. The distillation is conducted either by direct fire or by steam. Direct fire distillation is quite a delicate method; if it generally gives an oil of a higher specific gravity, such oil very often shows a burnt characteristic due to the caramelisation at the bottom of the still of the pectines from the juice. Distillation with live steam will yield an oil of lower specific gravity, but which will never show any burnt odor. The best practice should be to distill with direct and indirect steam to prevent the caramelisation of the pectines on the steam heating coil, in order to maintain the juice in constant motion during the distillation.

Green or Ripe Fruits

It is still controversial if the fruits should be distilled green or ripe. The oil from green fruits is finer than that from ripe fruits. It is not yet a common practice to classify the fruits by color. If not followed it is simply because no better price is obtained for the oil from green limes. Lime distilled is generally purchased mostly on the basis of odor and not by the citral content or by the specific gravity. A firm in New York however prefers a high specific gravity (up to 0.864) providing the oil is not burnt. Using a long period of distillation (5 hours) practically most of the oxygenated fractions of the oil have distilled over. Other buyers are satisfied with a gravity from 0.860 to 0.862 providing the odor is good. Premium for West Indian oil generally of a better average quality than the Mexican is slowly dis-



Polak & Schwarz Inc., 667 Washington Street, New York - 14 (N.Y.)

Author Louis Dejoie, a recent visitor to the United States, is a pioneer in developing a new process of distilling Haitian Lime Oil.

appearing. In the West Indies it does not pay even to wash the fruits before crushing or eliminate damaged fruits from the sound ones. In Europe a good lime distilled from washed green fruits, and distilled for five hours, will bring 25 to 30 cents over the price of West Indies, but unfortunately the quantities sold are limited.

Lime Oil Was a By-Product

Lime Oil Distilled was formerly a by-product of the lime juice industry. Now the distilled oil is the principal product and the juice, the by-product, mostly wasted. It is quite likely that lime juice will become one day again a major product, if processed under the form of a frozen concentrate, to supplement and compensate for the shortage and increased demand of lemon juice. This possibility to materialize will take some time since most of the lime oil distilleries are small, antiquated, and financially incapable of large investments for modern equipment. However, in several producing countries, the distilleries could be consolidated and the fruits treated in a central processing plant, where both lime distilled and concentrated frozen juice can be produced. Although concentrating lime juice for beverage purposes is more delicate than that of lemon, it is believed that the problem will be solved in the near future by research and the use of specially constructed modern equipment. Of course such equipment should be designed to maintain the particular flavor of the lime oil distilled and at the same time give an acceptable palatable juice notwithstanding the high rate of transportation and duty that this product has to bear to enter the U.S.A.

Another Method of Distillation For Lime Oil

The conventional method is to distill the lime juice obtained by pressing the fruits in roller mills or expellers. This oil has specific flavor characteristics due to the fact that it is distilled from a permanent acid media. It is well known that such a media is responsible with the heat for the partial destruction of the citral in the distilled oil. The concentration of the acidity of the juice in the process of distillation (direct fire or indirect steam-heated stills) is likely to give a high specific gravity oil containing the high oxygenated fractions. Distilling by heating the juice with live steam dilutes and reduces the acidity of the juice. This method always gives a lower specific gravity oil with reduced but finer odor characteristics. In the last two years a distiller in Haiti has discovered that it was more profitable, instead of renewing his worn out crushing equipment, to distill directly with live steam the whole fruits. The oil so produced, although by definition a distilled lime oil, does not possess the odor characteristics of the true lime oil obtained by the conventional method of distillation. It has been accepted however by some small users of lime oil in the U.S.A., but at a price lower than the normal price of the regular Haitian distilled oil. Lime distilled from whole fruits is more fruity and lemonlike; it is a different oil lime distilled, although the constants are about the same.

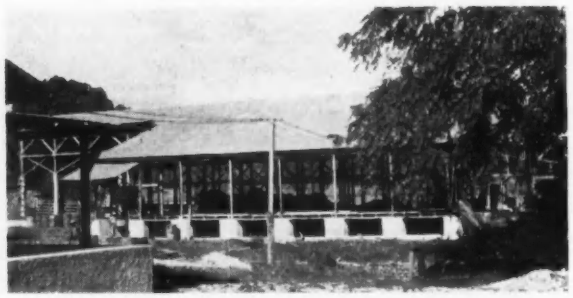
Procedure

The method of distillation is simple: the fruits are dumped in large vats of 6.000 liters used for Vetiver and Amyris, live steam is applied for 20 to 24 hours and the oil is collected as usual. It is easy to understand how the distillation proceeds: During the first 6 hours very little oil is distilled, generally during this stage only 10 percent of the total oil in the rinds come out, the fruits remain whole in the boiling water and the oil is not yet distilled in a high acid pH media acid. It remains expressed oil, and is higher in citral than the regular oil. After 8 hours the fruits begin to break and finally form a real purée or mash; at this moment the media becomes acid, the cells of the rind are broken by the heat and the mass enters in ebulition diluted by the water condensed from the steam. As soon as the destruction of the rind cell walls takes place, more oil goes over with the distillate. After 14 hours, the oil passes in smaller quantities and finally after 18-20 hours all the oil of the rinds have distilled over. The distillation period can be reduced by applying more steam.

The main advantages of distilling whole fruits are: (a) the yield of oil per ton of fruits is 20 to 30% higher according to the season and state of maturity of the fruits; (b) the equipment required is simple, inexpensive and the process necessitates only 1/3 of the labor of the conventional method.

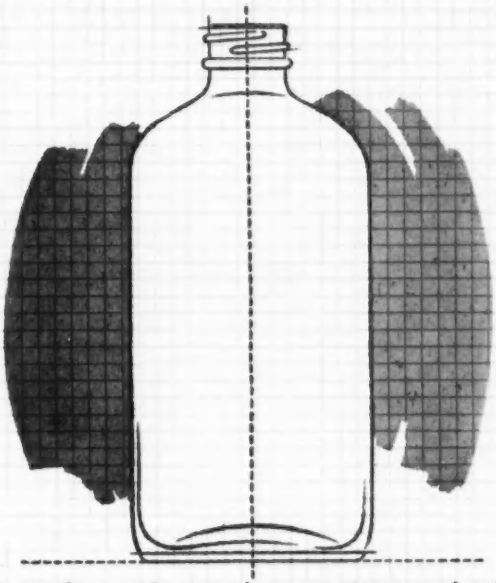
The Final Product

Lime oil distilled from whole fruits is in a class by itself and should not be confused with and compared with lime oil distilled by the standard method; and consequently should be worth about $1 less per pound. It remains to be seen if the American market will adopt the whole fruit distilled oil as a standard oil lime distilled. In such an eventuality, all the producing countries soon will adopt the method and an annual resulting surplus of around 100,000 pounds of oil will have to be sold. This besides depressing the market will

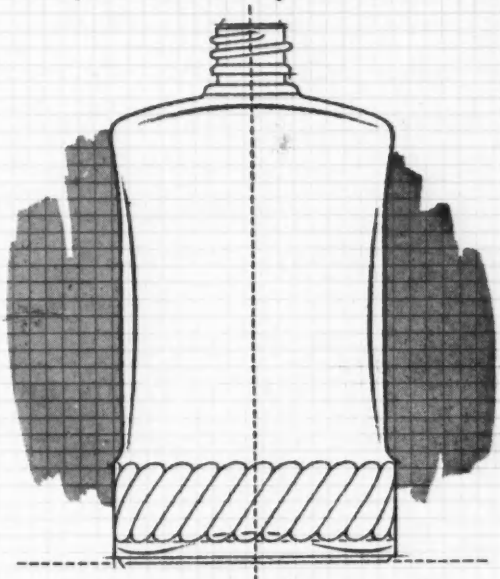


Outside view of a Haitian Lime Oil manufacturing plant.

Which one is the SALESpackage?



Is it the package where product protection is the dominant consideration?



Or the package of high style and distinctiveness?

Or the package with advantages for the retailer, or in actual consumption?

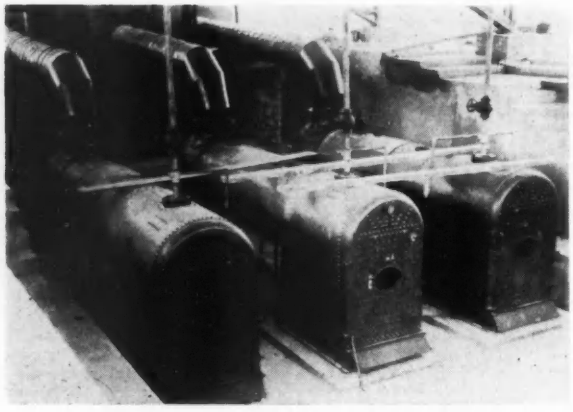
The answer has to be: ALL of them

But few product problems fall into one exclusive category.

The Owens-Illinois method of systematic exposure of packaging problems to the engineer, the designer and the marketer yields an impressive consistency in producing top packaging values.

DURAGLAS CONTAINERS
AN (I) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO



Boilers for processing Haitian Lime Oil Distilled.

certainly lower the quality of the finished product, if quality is a determining factor in the products into which Distilled Lime Oil is used.

The writer is of the opinion that the legal standard of Haitian lime oil distilled, should be modified to include this new class of lime oil.

Containers of such oil used for export should be clearly marked: "Distilled Lime Oil whole fruit" in order to differentiate that oil from the regular oil lime distilled. With such marking at the origin, controlled by the Haitian Dept. of Agriculture,—the legal body authorized to control essesntial oils—American dealers will know the type of lime distilled they are buying, of course providing they are interested.

Exports of Lime Oil Distilled

The official exports statistics up to September 1953 are given below from the fiscal year 1941 - 1942 to 1952 - 1953.

FISCAL YEAR	KILOS EXPORTED	FISCAL YEAR	KILOS EXPORTED
1941-42	2.396	1947-48	5.963
1942-43	4.168	1948-49	10.417
1943-44	5.704	1949-50	8.944
1944-45	10.078	1950-51	8.346
1945-46	7.794	1951-52	12.670
1946-47	5.068	1952-53	15.347

Total Exported for Contemplated Period: 96.895 Kilos

The writer, the largest producer of the conventional lime oil distilled (98% of the export) can assure the industry that close to 11,000 pounds of *Lime Oil Distilled from whole fruits* have been shipped to U. S. dealers who have paid one dollar more than they should. This type of lime oil made its first commercial appearance in the United States during 1951-52 and is produced by only one large distiller in Haiti. This new method of lime distillation is responsible for the increase in the exportation of this essential oil. The Haitian Statistics do not differentiate between the two types of lime oil distilled.

Intelligence is the effort to do the best you can at your particular job; the quality that gives dignity to that job, whether it happens to be scrubbing a floor, or running a corporation.

J. C. Penney.

Store Displays and Product Promotion

STORE display converts consumer preference and consumer acceptance for a brand into actual consumer demand at the point-of-sale.

We must bear in mind that today:

1. Mighty few shoppers will walk a mile for an advertised brand. They are quite willing to take one advertised brand or another—including one demanded brand or another.

2. Shoppers are buying faster—more impulsively. They seldom use a shopping list.

3. They buy almost anything under one roof—and they willingly buy more and more merchandise through self-service, self-selection, etc.

What all of these developments mean is that the most valuable advertising an established brand can get is point-of-sale merchandise display. If some advertisers were compelled to make a Hobson's choice for a year between still more advertising and merchandise display —then they would be compelled to vote for point-of-sale display. A brand might be able to survive without advertising for a year or so—but it absolutely could not survive without point-of-sale display for a full year!

Under conditions of self-service, self-selection, quick service, it is display of merchandise that sells. It used to be said that an advertised brand, well displayed, is half sold Today it's three-quarters sold when it is well displayed and it's dead when it is not displayed.

The combination of strong advertising and strong point-of-sale display is the most powerful leverage for volume that exists in business today.

In-store display is so vitally important today that in self-service and self-selection stores in particular it is possible to move the volume done on even the most strongly advertised brands either up or down by as much as 25 to 35% by a simple change of shelf level. The same shelf frontage—the same section—but just drop even a most powerfully advertised brand down from eye level shelf to knee level shelf and volume will be cut considerably. That surely indicates how vitally important in-store display is.

Advertising simply cannot return a worth-while dividend on the investment unless and until a brand gets powerful and active and choice merchandise displav in every outlet that stocks it. That is why the manufacturer's salesmen must be retail helpmen—not merely salesmen. They must be (1) display experts; (2) promotion experts; and (3) merchandising experts. For it is at the point-of-sale that the company's advertising campaign is supported.

The vast majority of advertisers create simply consumer preference and consumer acceptance for a brand —but it is the store display that converts such preference and acceptance into actual consumer demand at the point-of-sale.—*Abstracted from an article by E. B. Weiss in Grey Matter.*

"We didn't all come over on the same ship, but we're all in the same boat."—*Bernard Baruch.*

Learn from the mistakes of others—you can't live long enough to make them all yourself.—*Martin Vanlee.*

Hoya Carnosa is in a class by itself– So are **DREYER** Synthetic Scents

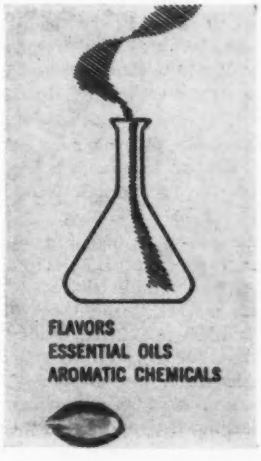
The waxen flowers of *Hoya Carnosa* have something rare and fragrant.

Their perfume is memorable. It has its own distinction. Nature does not duplicate it.

You can't get it even from Dreyer . . . which is so adroit in re-creating even the subtlest natural flower odors.

And a Dreyer Floral Essence—besides having the unique characteristics of the natural flower perfume—seems to have greater power to last—with more uniformity, too.

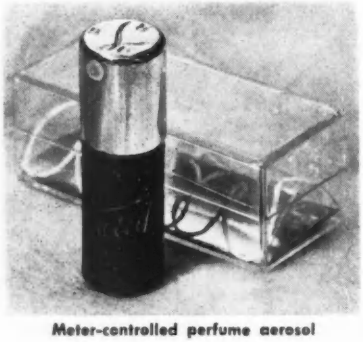
So the quality you want is always kept high, and the costs you must watch are kept low. Send today on your letterhead for free samples.



depend on *Dreyer* **for**

P. R. DREYER, Inc. 601 WEST 26th STREET, NEW YORK 1, N. Y.

NEW PACKAGING and PROMOTIONS



Meter-controlled perfume aerosol

LENTHERIC presents the first quantity meter controlled perfume purse size atomizer, Deb-Dab. It measures the exact quantity of perfume released, shutting off automatically. It offers over 200 applications. The metal container is leak, spill and light proof. With Tweed or Miracle perfume it sells for $4, with Adam's Rib or Dark Brilliance for $5.

NATONE CO. is distributing the Pierre Balmain Parfums line in the U. S., featuring the new Jolie Madam scents. The perfume comes in ½, 1 and 2 oz. bottles, at $15, $26, and $55 respectively, the cologne in 2, 4, and 8 oz. sizes at $5, $9 and $15.

PARK & TILFORD offers the retail trade a display card holding 24 29-cent Stay-Put lipsticks, in eight different shades. Winx 29-cent Mascara and 15-cent Eyebrow Pencil are also featured in a new merchandise display carton.

VELO-DERMA will offer its one ounce, $10 size of Lotion 770 for $6 from December 26 through January 31.

LILLY DACHE, a division of General Beauty Products, Inc., is planning to capture a sizable share of the hair goods market through distribution to some 1,500 franchized retail stores, including 600 drug stores, on a direct-to-retailer basis. The ultimate goal is distribution in 3,000 franchized outlets, including drug and department stores, women's specialty shops and beauty salons. The 9 hair products now being launched include shampoo hair coloring, shampoo, hair fixative, bleach, hair coloring, and a home permanent, as described on page 362 in last month's issue. General Beauty Products, Inc. was formed last spring by Coty to market cosmetics lines under the Lilly Dache, Lucien Lelong and Marie Earle names.

LEHN & FINK PRODUCTS CORP. packages lipstick and film foundation together in a Robert Gair Co. combination display carton. Top of carton has a step display to hold 24 Dorothy Gray Super-Stay Lipsticks separately in upright position, enabling easy selection and encouraging self-service. A colorfully

Combination display self-service carton

printed display card with price, listing of colors, and reference to the company's TV commercial, pulls up and locks into position at the back of the display. Twelve bottles of Dorothy Gray Sheer Velvet Film foundation rest in the lower part of the display, in a folding carton pull-out drawer. The front of the drawer is printed with color names of the film foundation, plus price. The drawer carton has a special lock so it cannot be pulled out of the display.

NESTLE-LEMUR CO. offers a flacon of Harriet H. Ayer's Exotic Perfume free with each 89 cent aerosol can of Spraze hair spray.

CONSOLIDATED COSMETICS, INC. introduces an aerosol hair conditioner containing silicone, which is said to give the hair a wet-weather-proof lustre. The maker recommends it as a cleanser when there is no time for a shampoo. It is claimed to be neither sticky, nor oily, and to contain no lacquer.

RICHARD HUDNUT'S Pin-Quick permanent is said to be "simple as setting your hair." It is claimed to prevent bobby-pins and clips stains, after-permanent odors, and the need for rinsing. Moreover, it is said to be the only pincurl permanent that can be safely heat dried. It is backed by a money-back guarantee that it lasts longer than any other pincurl permanent. The product is advertised in TV's "Your Hit Parade," and local newspaper advertising. It retails for $1.50.

DOROTHY GRAY offers special, limited time specials of 12 oz. Blustery Weather Lotion, 12 oz. Special Dry-Skin Lotion, and 6 oz. Estrogenic Hormone Lotion, at $1 each.

AMOLE, INC. introduces Hair Sheen, a lanolin hair conditioner with hexachlorophene for deodorizing and control of dandruff. It comes in a 12-ounce aerosol spray, selling for $1.50.

JAQUET, INC. offers Magique Foundation Lotion, in any of four shades. It is claimed to cover flaws, to add color, and to wash away ruddiness. The price is $3.

Foundation package

Insure the excellence of your cosmetic products!

SONNEBORN CARNATION WHITE MINERAL OIL NOW FORTIFIED WITH VITAMIN E

. . . . . for ✓ *exceptional purity!*
✓ *excellent stability!*
✓ *outstanding odor and color resistance!*
✓ *longer shelf life!*

Creams, hair oils, hair dressings, permanent wave lotions... whatever your cosmetic product... the White Oil you use should be fortified with Vitamin E to assure greatest stability against odor and color development. Now Sonneborn Research Laboratories have developed and patented a Vitamin E-fortified white oil—CARNATION White Mineral Oil—to help make your finished product better... keep it factory fresh.

Give your cosmetic product the stability, the superior shelf life, the greater customer satisfaction—which CARNATION White Oil can help assure.

Why take chances when protection costs no more! Insist on Sonneborn CARNATION White Oil fortified with Vitamin E!

Achieved by **Sonneborn** RESEARCH

L. SONNEBORN SONS, INC.
New York 10, N. Y.

New folding cartons

RITONELLE, INC. is newly packaging Mona Lisa Eau de Toilette in gold Foiline Robert Gair Co. cartons, printed in black with a picture frame design. The folding carton has a platform bottom on its inside flap to give additional protection to the bottle in shipment. The toilet water comes in two sizes: 1 and 3 ounce bottles.

LILLY DACHE, a division of General Beauty Products, Inc., is introducing two new evening powders, Lilly Mauve and Lilly Green, to harmonize with current evening fashions. They sell for $2 each. The firm is also introducing three pink lipsticks, Morning, Noon and Night, in a single package, together for $5. Distribution of Gilded Lilly leg make-up, for use under nylons, is also being planned.

PRINCE MATCHABELLI's Cologne Cruise, a $2.50 travel motif novelty package of four colognes named after Mediterranean ports, is featured in a counter display holding a travel ticket with fragrance-directions. The colognes, named Tangiers, Valencia, Cannes, and Napoli, come in cartons joined together accordion-fashion so that they fold to form a simulated steamer trunk, complete with strap, fixtures, stickers and tag.

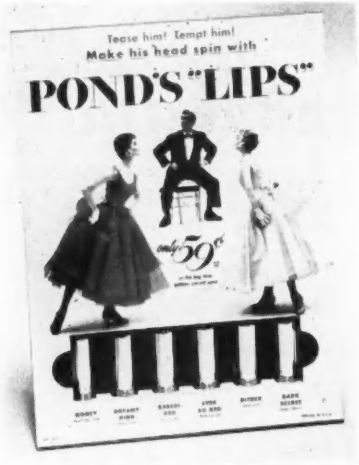
BRISTOL MYERS CO. offers a special toothpaste-toothbrush combination, consisting of the 47 cent size tube of Ipana toothpaste, plus a 59 cent Tek toothbrush, together for 69 cents, a saving of 37 cents. The special is promoted via two different red-and-green shipper displays.

PARFUMS MONTEIL, INC. is distributing Fleur Sauvage perfume at $25 and $45. The same scent also comes in Eau Concentree, at $5, $8 and $12; in Bath Oil, at $4; and in Dusting Powder at $2.50 and $5. A combination set holds Eau Concentree and Dusting Powder, and sells for $7.50.

HARRIET HUBBARD AYER, in a post-Christmas promotion, offers a free dispenser with French Formula Lanolin Hand and Body Lotion. The 8-ounce bottle, plus the dispenser, together in individual counter display units, will sell for $1. In another post-Christmas promotion, the $2.50 and $4 sizes of Luxuria Cleanser Beautifier will be on half-price sale for a limited time only.

CONSOLIDATED COSMETICS, INC. offers Lanolin Plus Baby Oil in a 6 oz. bottle for $1.

HELENE CURTIS has launched an advertising drive on Super Soft Spray Net, its hair spray package, in 189 markets.



Unusual Pond's dispensing easel

POND'S two new self-service easeled four-color lipstick displays hold two dozen lipsticks, four in each of six shades. One features the 29 cent size, the other, with an unusual dispenser design, features the 59 cent size.

LENTHERIC exhibits five different toilet waters in a backless frame display, permitting light to enter through the bottles from behind.

KINGS MEN LTD. offers a January special on the 8 oz. flask of its After Shaving Lotion at $1 instead of the regular $1.50 price.

"Special" display container

HOUBIGANT introduces Lotion Whip, a Chantilly scented hand cream and hand lotion formulation. It is said to protect the skin against the effects of detergents, soaps, cold water and temperature changes, and to replenish natural skin oils. A 5 oz. aerosol can sells for $1.25.

KINGS MEN offers Luxury Traveller Kits, containing Lotion, Hair Dress and Talc, for $2.90; Lotion, Talc and Deodorant for $3.25.

COTY has devised a special Christmas Giftrim collection that transforms year-round make-up and perfume gifts into holiday packages, complete with golden candles, bells, ribbon bows and Christmas paper.

REVLON introduces a new lip and nail shade, Queen of Diamonds. A special match-box contains a Lanolite non-smear type lipstick, a bottle of nail enamel and new Super-Base Coat. Said to be a $2.20 value, the package will retail for $1.35.

A. D. MC KELVY CO. introduces Seaforth Minute Shave, a lanolin shaving cream in a white aerosol, red-and-green accented. For Christmas selling, it comes in a special green gift box, with snowflake and snow-branched tree designs, and a tree-shaped cut-out displaying the product. The aerosol is said to hold enough lather cream for over a hundred shaves; it sells for 98 cents. The

Aerosol shaving cream gift package

company's president, Patrick H. Gorman, on a recent business trip to the West Coast, presented checks to the winners in the Seaforth World Series Dealer Contest.

CARTER PRODUCTS, INC., for Arrid Cream Deodorant and Carter's Little Liver Pills, and The Toni Company, for Prom Home Permanent and White Rain, are sponsoring "Meet Corliss Archer," a situation comedy series over CBS Radio.

VERONOL

AN ALDEHYDE

Typical Specifications:

PHYSICAL APPEARANCE:	Light yellow liquid.
ODOR TYPE:	Aldehydic; suggestive of a mixture of higher aliphatic aldehydes.
SOLUBILITY:	10 parts soluble in 100 parts 80% Ethyl Alcohol.
STABILITY:	Stable in soaps, cosmetics and perfumes.
REFRACTIVE INDEX $n\frac{20}{D}$:	1.4525
SPECIFIC GRAVITY $\frac{20}{20}$:	0.8500
SUGGESTED USES:	As an ALDEHYDE TOP NOTE . . . 1/10 to 1/2%. *Extremely powerful,* it is an interesting addition to existing fragrances to add life and improve character of bouquet.
QUALITY:	Highly purified for use in fine perfumes. Held to rigorous specifications by our control laboratory.

Note these additional VERONA specialties

BERGAMOT SYNTHETIC P-1104 • RESEDALIA

CYCLAMAL • FLOWER OIL WHITE LILAC

Sole representatives in the United States for: J. & E. SOZIO, GRASSE, FRANCE

RESINOIDES • NATURAL ABSOLUTES • ESSENTIAL OILS

VERONA

PRODUCTS BUILD SALES FOR *Your* PRODUCTS

Aromatics Division

VERONA CHEMICAL COMPANY

Plant and Main Office: 26 Verona Avenue, Newark, N. J.

1210 Rosedale Avenue, Chicago, Ill.

THERE'S *Design*

IN FRAGRANCE TOO!

A successful perfume is designed to be a fine work of art, to be technically right, to appeal to the tastes of its specific market, and finally, to suit its class price-wise.

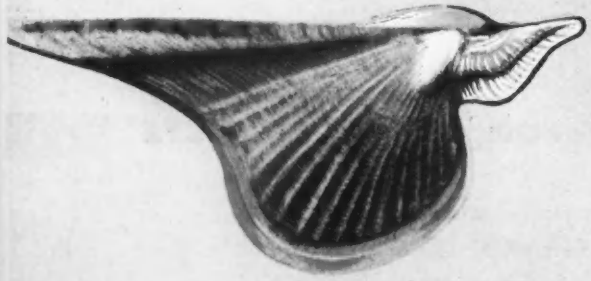
The van Ameringen-Haebler organization is unmatched in ability and experience in producing the finest in perfume materials.

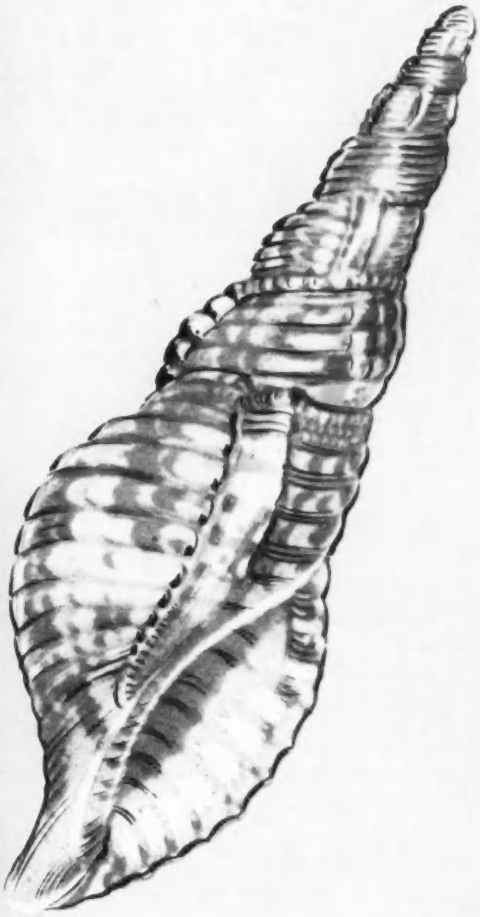
We would like to help you with your next perfume problem.

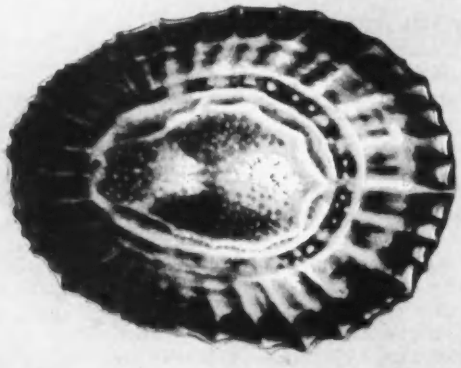
MANUFACTURERS AND CREATORS OF THE FINEST PERFUME MATERIALS

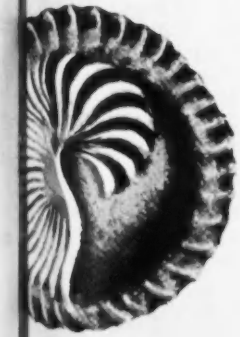
van Ameringen · Haebler, Inc.

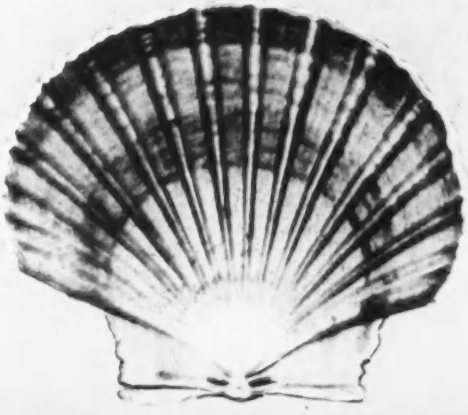
521 WEST 57th STREET NEW YORK 19, N. Y.











The Editorial - "WE"

Yuletide Greetings To Our Readers

CHRISTMAS surely belongs to the entire world, and every newspaper and journal that can pause a moment from its serious tasks will no doubt be devoting a few words of greetings to its readers. But we have always felt that fragrance belongs to Christmas, and Christmas to fragrance. From Biblical times, when the Three Wise Men brought myrrh and frankincense with their gold, to the present day when a home is redolent with the pungent and pinelike odor of the Christmas tree, this is a season associated more with perfume than with any other commodity that one can name. From the holy day when incense was burned in the temples, to the holiday when the suitor comes with precious fragrance as his most eloquent gift, the air literally smells of Christmas.

We greet our readers and wish them a joyous holiday. The approaching Christmas season finds the world relatively at peace. In an international situation as volatile as the one in which we are living, we hardly dare to write these words, for fear that they will sound hollow before the ink is dry. We hope for peace for the world and for a prosperous year ahead. In a world free from the fears of war, the enjoyment of perfume will be not an escape from reality but one of many delightful cultural pursuits.

Poucher Honored By Cosmetic Chemists

THIS year the Society of Cosmetic Chemists, for the first time in its history, has gone abroad to choose a medalist for its coveted honor. The man so honored is William A. Poucher, one of the best-known figures on the perfume and cosmetic scene, a man whose contribution to the science and to the literature of perfumery has made his name outstanding for a quarter of a century. Although there had been literally hundreds if not thousands of cosmetic and perfume formulary books, dating back to the sixteenth century and perhaps earlier, there were few serious, modern worthwhile works before Poucher. Perfumery in particular, and cosmetics to a lesser degree, were couched so much in secrecy, and the most able men in the field either would not write or would not disclose what they knew. Mr. Poucher broke sharply with this tradition; he showed that the talented perfumers and the firms with which they were associated had nothing to lose, and much to gain, by the development of a scientific formulary literature. And it is a testimonial to the man and his remarkable ability that today, after a quarter of a century and innumerable editions, the formulas, (at least for perfumes) that were published in the mid-twenties are as vibrant, as fresh, as valuable as they were at that time.

In honoring Mr. Poucher, the Society of Cosmetic Chemists broke with a practice that was several years o'd, and sent its medal to a foreign land. This, as we see it, was a necessary step to take. For the medal was not restricted to Americans, and so long as scientists the world over were eligible, it was high time that at least one of them be recognized.

It is true that we in the U.S.A. may be especially familiar with the achievements of our colleagues with whom we come in contact most frequently, and this is particularly true when one honors a man whose publications do not ful'y reveal his achievements. But the Society of Cosmetic Chemists has, among its leading members, many who are fully aware of the outstanding work done by cosmetic and perfume chemists in Germany, France, Switzerland, Italy, England, and many other corners of the globe. Now that the medal has touched foreign soil, we hope that Americans will again be honored, whether from time to time or very frequently, but only when they deserve this citation in open competition on the international arena.

A Resolution For 1955

LET us resolve, in 1955, to continue the struggle for the abolition of the so-called luxury tax on cosmetics. Let us popularize the fact that this is a good-grooming tax, a penalty not on an industry so much as on American women.

A British View Of American Market

THE managing director of a well-known British perfume and cosmetic house has written an interesting description of the world market for his products, which includes a few words about the U.S.A. The article, published in *Soap Perfumery and Cosmetics*, is entitled, "Perfumes Follow Prosperity," a conclusion with which one would not wish to take issue. In a few words dealing with America, as seen by these British eyes, he points out that "Americans like English products they buy to be steeped in authentic English atmosphere. They still seem to preserve the idea that England is one big thatched cottage . . . The perfumes we sell them are Devon violets.

Silent Partner

A specialty is the foundation of a perfume . . . its quality dictates the quality of the fragrance, its originality guarantees the final acceptance of a product. Roure-Dupont's laboratories both here and abroad are continuously at work in the creation of new and interesting specialties for all types of perfumes and cosmetics. To these do many great perfumes owe their success. Let us be your silent partner in a fabulous industry! We can suit every taste and every pocket. Our products have class and distinction, our laboratories are at your disposal at all times.

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lavender water and suchlike fragrances that are redolent of the 'Olde Englishe' countryside. We pack them in little pottery jars and bottles in the same character, instead of the conventional sophisticated glass bottles that always seem to go with perfumes." Naturally, these words set our mind to thinking. The market for English merchandise in the cosmetic and perfume industry is not a vast one in the United States; for French products, the sophisticated tastes still go strong for the imported material, if it is perfume. An imported product must sell either because of its inherent superiority, its more attractive price, its reputation, its availability as distinct from an unavailable domestic preparation, or because it suggests and captures the flavor of a foreign land.

The American consumer is buying quite a few British automobiles and bicycles, and is certainly fond of British wool. There should, in our opinion, be a market in this country for some British perfumes and cosmetics that do not artificially simulate an American illusion of what England still is. Certainly British imagination and ingenuity are producing some materials not being made in this country, and they are the ones that can find a permanent place on the American scene. Otherwise, the British will have to be content with selling some lavender and old lace, and that will never be a tremendous market again.

Author of Book On Perfume Dies

A. HYATT VERRILL, author, naturalist, and explorer, died last month at the age of 83, after a life that had taken him to every part of the globe and into any field of study in which a lover of nature could find an interest. It is no wonder, then, that during his lifetime, he authored no less than 105 books, each an erudite and readable study in a separate field. Another mind, perhaps less versatile, might have spent many years absorbing the information necessary to put out just one of these books. We ourselves would only have paused a moment in admiration, were it not for the fact that one of his works dealt with perfume. Entitled "Perfumes and Spices," it was one of the very few successful efforts to write popularly about the romance, history, and science of fragrance. Although it received a good press and some popular distribution upon its appearance, the book has never been widely read within the industry. Perhaps death will revive the interest in a work that is valuable, not for what it can teach, but for its method of presentation of difficult material.

Entertainment Plans For TGA Meetings

WE learn that the associate members of the Toilet Goods Association are planning two joint cocktail parties, to be given on successive evenings, during the 1955 TGA convention. As many readers will recall, there had been some argument over the parties that had been given by several of the associate members in times past. We hope and sincerely believe that the joint cocktail party may be the best solution to this problem, provided it is carried out in a fair manner by all cooperating firms. The TGA has expressly stated that this policy is not a precedent. It will have to be tested by experience.

Children's Market Expanding Rapidly

THE market for children's cosmetics has been expanding; it encompasses not only the products for infants and babies, and the cosmetics for adolescents (probably not unlike the cosmetics used by their parents), but also an interesting field of gift toiletries, often with novelty packaging ideas, and directed to youngsters in their early teens or even younger. Because this expanding market has reached a higher point of sales and acceptance in the larger cities, we were particularly interested in a statistical report that 70 per cent of the children in America under 14 years of age live in places with a population of 50,000 or less. This may be a key to a vast and relatively untapped market.

Supreme Court Refuses Fair Trade Review

AGAIN the Supreme Court of the United States has refused to review its previous opinions on the constitutionality and validity of fair trade. Today the legality of fair trade has been established; the matter is no longer open to serious question. Fair trade seems to be here to stay. It is up to manufacturers and retailers to make it work, by good relations between these two groups, by fair methods of enforcement and cooperation, and by a continuing plan for consumer education.

Pension Plans And Older Workers

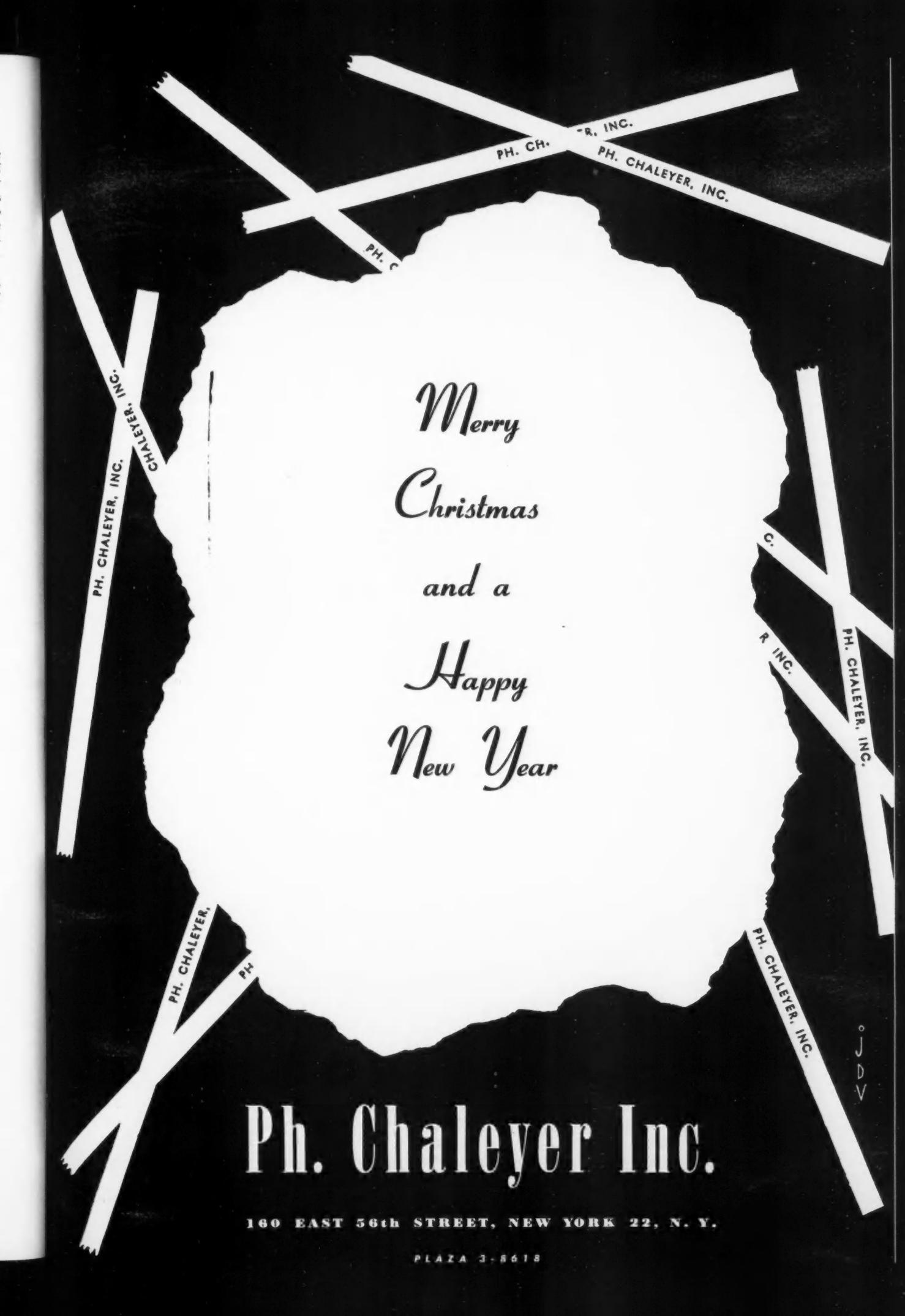
THE pension plan has become such an important part of the American social and economic scene, that no one would seriously challenge its value. Pension plans are not, however, without some drawbacks. If it is true, as it is, that workers are not afraid of the poorhouse or of becoming objects of public or private charity as they grow older, it is also true that older workers are finding it increasingly difficult to obtain employment. Many attribute this to the pension plans, which penalize firms hiring men who have relatively fewer years to go before they reach the retirement stage. Add to this problem of compulsory retirement of men who reach the age of 65 or, in some cases, even 60; men who are not financially in need, but who still find it important to occupy themselves by gainful employment. We do not pretend to have the answer to these questions. We insist, however, that they deserve an answer.

R-P Act Studied By Senate Lawyers

THE Robinson-Patman Act is again under study, with the Senate Judiciary Committee in the new Senate slated to consider amendments to the act. The efficacy of the act has long been questioned by many people, particularly in the cosmetic industry. A full-scale debate on the act took place at a TGA meeting not too long ago, and it would be time- and space-consuming for us to review the arguments, pro and con, here and now. More important, we feel that the opening of discussion should be the springboard for a review of the entire R-P question, and that the cosmetic industry should make its opinions on this matter known and felt when hearings are held in Washington.

Trade Practice Rules Deserve Careful Study

THE new cosmetic industry trade practice rules, adopted after innumerable conferences and debate, are being circulated to the cosmetic industry by the Federal Trade Commission. Probably most of the executives of the larger firms are thoroughly familiar with every paragraph, every phrase, in these trade practice rules. It would be difficult to conceive of anything more important at this time than the thorough familiarization of such rules by members of the industry. Having read and studied the rules, executives will find compliance none too difficult and, so far as we have been able to determine up to now, such compliance should not bring great hardships with it. We hope that an explanation, elucidation, and discussion of the rules will take place at coming conventions and meetings.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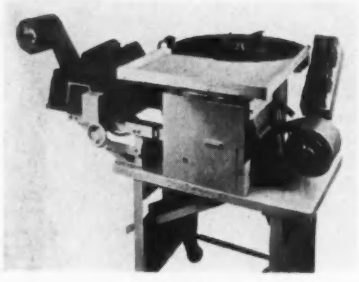


Packaging machine

Packaging Machine

Its low cost versatile packaging machine which is claimed to produce automatically a flexible package with quality seals has been improved to handle a wider range of heavy gauge commercial packages and to meet rigid specifications on special materials according to the manufacturers, Pak-Rapid, Inc.

Combination Tool

A combination tool introduced by Markut Tool Co. includes a standard

Combination tool

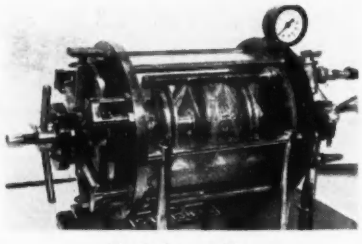
drawing crayon and a precision cutting blade in a lightweight tubular aluminum body. The cutting blade is used to open cases and cartons and the crayon to mark prices, the identification or the amount remaining in the case. It sells at a moderate price.

Corrosion Resistant

A new 'self curing' liquid neoprene coating which is claimed to have outstanding resistance to corrosion has been announced by Emjay Maintenance Engineers. It is suggested for use in the protection of new or old equipment. Full information about it will be sent on request.

Plastic Pressure Test Filter

To meet the need for a test filter unaffected by corrosive liquids the Hercules Filter Corp. has produced an all plastic filter which is available with leaves made of three different plastic materials: the acrylic, glass reinforced polyester and polyvinyl chloride. The company announces that it will ar-



Plastic leaves filter

range for tests of this filter by manufacturers who request it.

Stainless Steel Pails

A new series of stainless steel pails of one piece seamless construction in 13 quart and 16 quart sizes is announced by the Meyer Scientific Supply Co.

Processing Literature

The latest flavor folder published by Dodge & Olcott Inc., 180 Varick St., New York 14, N. Y., is a special 72-page double brochure describing the company's complementary lines of Spisoresin and Spisorama seasonings. Copies are available on request.

The Podbielniak centrifugal contactor for solvent extraction which is said to extend the scope of the process of solvent extraction beyond the limits inherent in gravitational equipment is fully described and illustrated in a three-page advertisement in the November 6 issue of "This Week in Chicago." Full information about the equipment will be sent on request by Podbielniak Inc.

Lanolin Derivates for the cosmetic and its allied industries are described in a four-page folder issued by Croda Ltd.

Royalty-free patents are abstracted in a book called "Chemical Products and Processes" issued by the Office of Technical Services, U. S. Dept. of Commerce. Washington 25, D. C. It contains 1,350 government owned chemical inventions and sells for $3.

Proposals for a system of private and governmental guarantees against hazards faced by exporters when selling abroad on credit terms are given in a 36-page brochure issued by the International Trade Section of the New York Board of Trade, 291 Broadway, New York 7, N. Y.

Alkyl Halides, chlorides and bromides are described in a bulletin issued by Aceto Chemical Co. Inc. The alkyl halides find use primarily in the manufacture of quaternary ammonium compounds as well as in special organic syntheses.

SeaKem Extracts is the title of an interesting new house organ issued by the Seaplant Chemical Corp. It features stories on various uses of the company's Irish moss extractives in cosmetic and industrial stabilizing problems.

The Brown Pneumatic time pattern transmitter unit, an instrument which positions the set point indices of one or more instruments according to a definite time pattern is described in a folder issued by Minneapolis Honeywell Regulator Co.

Hercules synthetic resins, pentaerythritol, plasticizers and nonionics made by the Synthetics Dept. of the Hercules Powder Co. are listed in a new technical booklet which has been issued by the company. Copies are available on request.

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New Products

and Developments

Demineralizer unit

Demineralizing Drinking Water

Ordinary drinking water may be demineralized instantly to meet the newest specification of the U. S. Pharmacopeia by means of a demineralizer unit it offers according to Crystal Research Laboratories, Inc.

Shampoo Additive

Knapp Products, Inc., Lodi, N. J., which specializes in the development and manufacture of surface active materials which are unique in that they are designed specifically for application in cosmetic formulations, announces Polyterge 102, a shampoo additive that is said to permit the formulation of high lathering acid shampoos without the irritant and low foaming characteristics associated with cationic detergents. The company states that it also enables all types of shampoos, whether formulated with soap or synthetic detergents, to lather and rinse freely under the most severe hard water conditions.

Merchandise Cards

A new kind of merchandise card has been designed by Eon Ton Press. The card will hold a bottle of perfume or other small product for display purposes. It is made from a single sheet of heavy cardboard and can be permanently folded into shape, eliminating the need for pasting or stapling. It is designed to stand upright on its own base or it may be hung up.

Plastic Boxes

New industrial purchasers of plastic boxes can avoid the cost of special molds, Plastic-Paks announces, because it offers over 150 stock molds from which to choose. These are stated to cover a wide range in sizes in standard round, square and rectangular boxes as well as many unusual shapes. A range of colors is offered.

Wrist Action Shaker

A new wrist action shaker for heavy duty laboratory use has been announced by the Burrell Corp. Forty

Shaker

250 ml. Erlenmeyer flasks can be positioned at one time on its shaking platform. The capacity varies for other size flasks or bottles. A ruggedly built unit contains the motor, oscillator and controls. The same complete mixing swirl accomplished by human wrist motion is followed by the mixing mechanism. Almost any motion desired from gentle agitation to violent swirl may be set for fixed periods of time, it is pointed out.

Technical Grade of Myrcene

An improved technical grade of myrcene, used in the manufacture of perfume and industrial aromatics, has been announced by the Naval Stores Division of the Glidden Co. It is known as Myrcene-85 and is stated to be related chemically to geraniol, nerol and certain other alcohols found in various essential oils used in the perfume industry. The makers state that it may be hydrated to yield alcohols similar to linalool.

Sodium Meta Periodate

Sodium meta periodate which is stated to be in a grade satisfactory for the American Oil Chemists Society official method for determining glycerol is offered by Arapahoe Chemicals Inc. The Society recently eliminated all other official methods for determining glycerol and established the periodate method as the only official procedure for this determination.

Stills for Essential Oils. E. Brown and H. T. Islip. *Colonial Plant and Animal Products* (London) *3*, 287-319 (1952-1953).—Discussion of principles of distn., parts of an essential-oil still, types of distn., processes accompanying distn., natural materials available and their prepn., selection and operation of a suitable type of still, theory of distn., and a list of essential-oil plants grown in or suitable for Colonial cultivation, namely, basil, cassia, cedarwood, cinnamon leaf, eucalyptus, geranium, gingergrass, lavender, lemongrass, lime, neroli begarade (bitter orange blossom), palmarosa, patchouli, peppermint, petitgrain begrade, rosemary, thyme, vetiver, ylang-ylang, and cananga, with information regarding part of plant used, method of harvesting, and distn. *C.A.* 9629f.

Cold-Wave Preparations. Otto Leberl. *Kosmetik-Parfum-Drogen-Rundschau* 1954, No. 1/6,9-11.—The improvements in cold-wave lotions are described. In particular, the usefulness of org. S-contg. compds. of mol. wt.> 121 for cold-wave prepns. and their chem. mechanism are discussed. 44 references. Thru *C.A.*

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Flavor Section

Recent Flavor Developments

Taste and molecular structure . . . Sensory mechanisms in taste discrimination . . . Physicochemical studies of flavor problems . . . Odor classification

MORRIS B. JACOBS, Ph.D.

In a previous paper some of the articles presented at the symposium on the chemical aspects of flavor and odor sponsored by the Division of Agricultural and Food Chemistry of the American Chemical Society were discussed. Some other papers presented at this meeting and symposium are also of interest in our field.

Taste and Molecular Structure

As the readers of this section of THE AMERICAN PERFUMER know, I have discussed the topic of taste and molecular structure from time to time particularly with reference to sweetness and molecular structure.

According to Dr. Robert B. Warfield of the Bristol-Myers Co., a new theory of taste, if it proves correct, may make the human tongue the chemists' greatest instrument for prying out secrets of molecular structure so delicate that they cannot be determined by complex mechanical instruments.

This investigator told the symposium that he believes taste is a chemical sense which responds directly to the interaction of molecules of the substance being tasted with the sensory receptors of the mouth. For this reason he thinks that taste might have the capacity to reveal structural details of chemical compounds which can not be ascertained readily from visual data obtained by use of physical instruments.

Dr. Warfield stated that other investigators had noted that ordinary potassium chloride and other salts taste sweet in very low concentrations, bitter in medium concentrations, and salty in strong concentrations. This difference in taste might be due, according to Dr. Warfield, to the condition that the positive and negative ions of a salt are closer together in more concentrated solutions as compared with more dilute solutions.

If the tongue has taste receptors each of which is composed of a positive and negative constituent, the "sweet" receptors might be those in which the positive and negative constituents are widely spaced, the "bitter" might be those of intermediate spacing, and the "salty" might be those in which the components are close together. These taste differences are then differences in electrostatic patterns.

Stated more specifically, according to this theory, a common molecular factor among compounds having the same taste quality is that they are "taste couples" which are composed of a proton and a neighboring, unshared electron pair. The distribution of sweetness, bitterness, and tastelessness throughout several organic classes is interpreted by specific differences in electrostatic patterns arising from such couples. When the distribution of these taste qualities among inorganic salts is compared with factors such as ionic radius and hydration, the same quantitative difference between sweet and bitter electrostatic patterns is indicated.

In a sort of common experience illustration, the three kinds of receptors would resemble three electrical wall sockets which varied in that their slots were spaced differently. The molecules of sweet, bitter or, salty substances would be like three different-sized electrical plugs. Each time a plug fit into a socket, that is each time a molecule fit a sensory receptor, a nerve impulse would register the appropriate sensation.

Dr. Warfield stated that he had found evidence that taste tests of a relatively wide range of organic and inorganic materials of known chemical structure fitted this theory. His experiments also showed that, "taste receptors are obviously sensitive to subtle difference in molecular structure that have not yet been demonstrated by physical methods." He added, "Taste may become a sort of direct-reading instrument which reveals details of molecular patterns that are not readily perceived by physical instruments."

Physicochemical Studies

Loren B. Sjöström, Stanley E. Cairncross, and Douglas E. Melzard of Arthur D. Little, Inc. presented a paper on the physicochemical studies of flavor problems. This is in the nature of a continuation of other papers presented by this group on their profile method of flavor evaluation. They pointed out that there are two approaches to the study of flavor, namely, by chemical analyses of the components

of a product and by use of trained flavor panels.

They showed how they use both general methods. Among the physicochemical methods which they used were distillation, lyophilization, and dialysis to effect the separation of the flavorants from the food products being investigated. The flavorants could be additionally fractionated by means of paper and column chromatography and after chromatographic separation identification tests could be used for specific differentiation. The results obtained by these procedures could then be integrated by the aid of trained flavor panelists.

Sensory Mechanisms

Carl Pfaffmann of Brown University described his experiments on sensory mechanisms in taste discrimination. He studied the taste sensitivity in animals by amplifying and recording the electrical nerve impulses in the chorda tympani nerve after the application of a chemical stimulus to the tongue.

He obtained a quantitative index of the nerve response by an integrator device. Starting from a threshold value the nerve activity was found to be an increasing complex function of the logarithm of the concentration. Thresholds for basic taste stimuli in the rat ranked in order of decreasing effectiveness in the following manner: sucrose, sodium chloride, hydrochloric acid, and quinine. He found that the relative magnitude of response differed in different species.

Odor Classification

Dr. Albert L. Elder of the Corn Products Refining Co. presented a paper for Dr. Robert W. Moncrieff of Girvan, Ayrshire, Scotland. Dr. Moncrieff is very well known for his work in odor chemistry.

Dr. Moncrieff pointed out in his introduction that the underlying difficulty in investigations on odor has been that of characterizing odors. As the readers of THE AMERICAN PERFUMER know this is generally done on a subjective basis so that odors are depicted as being like something we meet relatively commonly. Thus we say a given material smells like roses, or oranges, or peppermint, or some other characteristic odor.

In his paper, Dr. Moncrieff proposed a new approach to this problem. He has based his theory on the view that olfactory discrimination is largely dependent on selective absorption of odorant molecules on the olfactory receptors. We all can probably accept the idea that if odor is to be perceived at all, the odorant must make contact in vapor form with the olfactory receptors.

It is known that stimulation of the olfactory area varies in spatial distribution according to the type of odor. It is well known that odorant materials can be adsorbed readily. Dr. Moncrieff now suggests that when smell is experienced, the initial stimulus comes from the adsorption of molecules of the odorant material on the nasal receptors. Since such a mechanism would be exothermic, energy would be available for the activation of the olfactory nerve.

Because it is not practicable to use those adsorbents which occur naturally in the olfactory area, experiments were made with readily available adsorbents such as activated carbon and silica gel and these show that there is a close correlation between quality of odor and adsorption. Dr. Moncrieff concludes that those substances which are adsorbed similarly have similar smells.

Using a simple "mechanical nostril" which was designed to duplicate some of the basic processes of the human nose, Dr. Moncrieff believes it is possible to define smells in terms of numerical values instead of vague phrases such as fragrant, fruity, fishy, or rotten. The mechanical nostril system is not really an artificial nose because it still requires a human nose at one end of the apparatus to make the measurement.

According to Dr. Moncrieff, the mechanical nostril has supplied evidence to support the theory that we smell things when molecules of the odorous substance are adsorbed on the surface of, or adhere to, special nose receptors probably located in the nasal mucous membranes.

The device he described consists of a fan; a quantity of odorous material either a single substance or a complex material like a food, say, fish, cheese, coffee, etc.; and a narrow column packed with a known amount of adsorbent material such as activated carbon, silica gel, fuller's earth, or activated alumina, all in a closed system.

In practice, the upper end of the adsorbent-packed narrow column is placed in one nostril of a human subject, the fan is turned on, and accurate measurements are made of the length of time that elapses until the experimenter notices a recognizable odor. This indicates that excess molecules of the test material has passed through the adsorbent. The length of time, which is a function of the adsorption characteristics of the odorous material, proved, Dr. Moncrieff reported, to be characteristic for each substance and food material.

For example, he stated, three different kinds of coffee, (the odor of which is undoubtedly attributable to a mixture of compounds of varying chemical structure), proved to have the same length of adsorbent time, or "smell number." So did two different kinds of cheese, one mild and one strong.

The results suggest, Dr. Moncrieff said, that the first stage of olfactory stimulation is an adsorption process, which might depend more on the physical properties of molecules of substances smelled than on their internal chemical structure. At the least, he added, the mechanical nostril should make it possible to establish a useful new system of classifying odors.

Flavored Notes

YOUR flavor editor has stressed over the years the need for a study of all aromatic chemicals used for flavoring purposes, principally to evaluate their effects on human beings. Very little has been done in this respect but it is to be noted that the Manufacturing Chemists' Assn., according to their president, William C. Foster, as told to the Seventh Industrial Health Conference held in Houston Texas during September, is considering the formation of an independent chemical health center to study such chemicals.

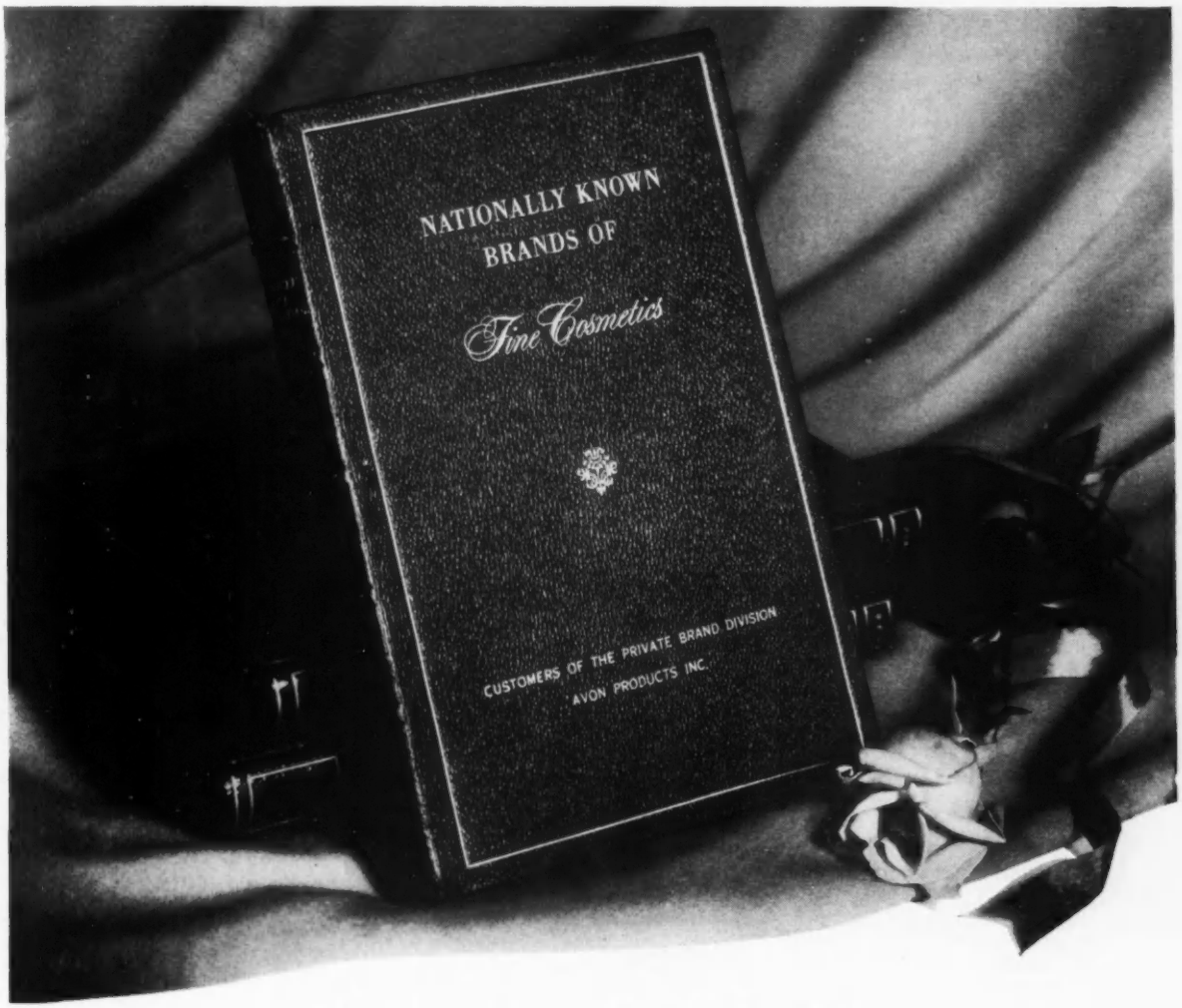
It was pointed out by Mr. Foster that millions of dollars has been spent by the chemical industry on toxicological research but relatively little of the data from such efforts is available to the industry at large. A central research organization could collate and correlate such data and thus make a research center of this nature, "a benefactor to all mankind."

D&O Exhibit at Meat Institute Meeting: "A World of Flavor"

"A World of Flavor" was the theme of the first D&O exhibit at the recent annual meeting of the American Meat Institute held in Chicago's Palmer House. Featuring the company's new line of dry soluble seasonings sold under the trade name SPISORAMA, the 24 foot exhibit was both designed and built by D&O personnel on the company premises. An added attraction to the booth was caricaturist Joe Kaliff who presented drawings of themselves to visitors to the exhibit.

Givaudan-Delawanna's Cincinnati Office in New Quarters

The Cincinnati, O., office of Givaudan-Delawanna, Inc. and its associate companies, Givaudan Flavors, Inc., and Sindar Corp., has moved to new and modern quarters at The Transportation Building, 307 East Fourth St., Cincinnati 2, O. The phone number remains PArkway 8254.



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Naturally, this book is a "closed" one. Names of the brands of fine cosmetics and toiletries made by the Private Brand Division of Avon Products are held in strict confidence.

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- ☐ Cedarwood
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- ☐ Citronella
- ☐ Clove
- ☐ Copaiba
- ☐ Coriander
- ☐ Eucalyptus
- ☐ Geranium
- ☐ Grapefruit
- ☐ Guaiacwood
- ☐ Labdanum
- ☐ Lavandin
- ☐ Lavender
- ☐ Lemon
- ☐ Lemongrass
- ☐ Limes
- ☐ Orange
- ☐ Patchouly
- ☐ Peppermint
- ☐ Petitgrain
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Book

Reviews

CHEMICAL ANALYSIS OF INDUSTRIAL SOLVENTS, by Morris B. Jacobs and Leopold Scheflan. Interscience Publishers, Inc., 1953. 501 pages, 6 x 9 inches, illustrated. Price $10.00.

The authors have assembled many valuable data, useful to chemists working with solvents in one way or another. The methods are essentially those in use in the United States. They would be more helpful had they included the principal foreign methods as well.

Some may say that all of the methods are not the very latest. Certainly overweighing any shortcoming here is originality and completeness of the presentation. Chemists faced with the analysis of an unknown will get some help in Chapter VI. It could be more complete and probably will be in subsequent revisions. Certainly more attention could be given to the discussion of fractional distillation on page 147.

Proofreading is very good but there seems to be a need for a comma in place of a period on page 368 in the first line under (b).

One marvels at the work, realizing it is almost a pioneer in its field, composed by two authors writing almost 5,000 miles away from each other. The need for this work has been evident to all working with solvents. The present book goes a long way in satisfying this need. Let not the few changes suggested above, be construed as being anything more than constructive.

The book is recommended for all laboratories doing cosmetic and related work as well as the general field of solvents. For among the cosmetic solvents discussed is glycerin, the polyglycols, propylene glycol, various alcohols, glycol ethers, along with the usual volatile solvents.

The book is well priced, legibly printed and sturdily bound.—*M. G. deNavarre*

GLYCEROL, edited by Carl S. Miner and N. N. Dalton. Reinhold Publishing Corp., 1953. 460 pages, 6 x 9 inches, illustrated and indexed. Price $12.00.

This is the first book on glycerol in about twenty years, supplanting Lawries' "Glycerol and the Glycols" published in 1928. Lawries' subject is now divided into two books due to the rapid and gigantic increase in the commercial production of both glycerol and glycols. The main body of material is contributed by authors Kern, Godfrey, Segur, Werkman and Hanke.

To this reviewer, the hundred or so pages on the physical properties of glycerol are the most important scientific contribution, since the authors point out in their preface that the objective is to "provide methods and data for those who use glycerol." This they have done. For along with the physical properties already mentioned, they include valuable chapters on specifications, analysis, chemical properties and derivatives and physiological action. Other chapters in this reviewer's opinion are more of a general information on the subject.

It is doubtful if large glycerol users would interpret the chart on page 10 in the same mild language used by the authors under the heading "World Glycerol Prices" on page 11, first paragraph.

It is most confusing to have the authors use *glycerol* in most of the book, and *glycerine* under "uses." In this section, about one page is devoted to cosmetics. Perhaps this industry should not feel too badly when examining the table on page 447 where it shows cosmetics and dentifrices to account for about 5 per cent of the total output of glycerine in 1950. This chapter seems very skimpy since there are some 1,500 uses for glycerol.

It would have been helpful to have more comparative hygroscopicity data on glycerol versus other commercially used humectants, than the few lines given the subject.

All in all, the subject is brought up to date. It is well written and no errors were found.—*M. G. deNavarre*

FRENCH-ENGLISH DICTIONARY FOR CHEMISTS. Austin M. Patterson. 5½x7¼ in., 476 pages, imitation leather covers. John Wiley & Sons Inc., Second edition, 1954. Price $6.50.

This new edition of this standard work has been revised with the aid of all available new vocabularies. The vocabulary has grown from 35,000 terms to 42,000 in spite of the fact that many terms having the same spelling and meaning in both languages have been omitted to save space. The chemical nomenclature has been revised to accord with the most recent decisions. The print is clear and very legible and the convenient size of the volume make it a must for the laboratory library.

HOW TO ATTAIN FINANCIAL SECURITY AND SELF CONFIDENCE. Marvin Small. 5½x8 in., 298 pages. Cloth covers. Simon & Schuster, 1954. Price $2.95.

This stimulating book contains 200 inspiring stories of people who made fortunes—and how they did it. It has been described as "the key book of business success and the book of personal strength." It is intended for those who are serious about their financial success. Its purpose is to be of constructive help. It gives six words that are the key to financial success; it tells how to put positive thinking to work; it offers five rules to prevent failure; it suggests how one can develop hidden power to make money and it points out where one may find acres of diamonds. It is an unusual book, an interesting work and an inspiring volume.

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Soap Section

Effect of Lecithin on Soaps

Value as ingredient of high grade toilet soap and possible risk of deterioration if soap contains free alkali

PAUL I. SMITH

THE availability of good quality vegetable lecithins at economic prices is encouraging their use as ingredients of high grade toilet soap. It is, however, important to remember that lecithin preparations are somewhat sensitive to alkali and if soaps do contain free alkali there is a grave risk of deterioration of these compounds.

Breakdown of lecithin through the action of alkalies tends to cause discolouration, noticeable as a mottled effect on white or light coloured soaps and, in some instances, destruction of the perfume and replacement with a strong amine odour. To avoid trouble in this direction, the soaper must ensure that an alkali free soap is employed and that the percentage of lecithin used does not exceed 5%.

Incidentally, this might well be considered to be an optimum figure as experience has shown that above 5% there is a risk of a yellow to yellowish brown colour being imparted to the soap. Additions to soap of lecithin up to 5% will not reduce the lathering properties of soap, whereas above this figure there is a marked diminution of lathering. Recently, claims have been made by manufacturers of egg or brain lecithins that they are more effective emollients than vegetable or soya lecithins and it is interesting to consider the truth of these assertions. On balance, it seems to be borne out in works practice that vegetable lecithins namely, those extracted from soya oil, are easier to mix and blend with soap than the egg or brain varieties. There is, apparently, little difference in properties between the two types, but of the greatest importance to the manufacturer is the fact that those made from soya oil are much more economical than any other variety.

Gallic Esters As Anti-Oxidants For Fats

CONSIDERABLE progress is being made in the development of gallic acid esters as anti-oxidants for fats and greases, both edible and inedible. The Dutch company, the N. V. Chemische Fabriek "Naarden" has introduced a mixture of octyl and dodecyl gallates as an anti-rancidity agents for fats. The Dutch Government has approved the use of the mixture up to 0.01% in edible fats following tests carried out by the makers in co-operation with the Central Institute for Nutrition Research in Utrecht. It is significant that the lower aliphatic esters, such as ethyl and propyl gallates, have hitherto been preferred to the higher esters including the octyl, dodecyl, cetyl and stearyl esters. The latter are now more stable and offer greater protection both as anti-oxidants and stabilizers.

Egg Oil As An Emulsifying Agent

AT one time egg emulsions were recommended for use in cosmetics and toilet preparations, including soap shampoos, but owing to their poor keeping properties their use fell into disrepute. Interest in egg emulsions has now been revived as stable egg yolk compounds can be produced in quantity suitable for major industrial uses. The advantages of these additives include good lubricating and emollient properties and an ability to confer valuable hydrophilic properties to soap and cosmetics. The new and greatly improved egg yolk compounds blend readily with soap and in the quantities recommended, have no noticeable darkening effect.

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NEW processes of molecular distillation make possible the production of high quality glyceryl monostearate, that is completely odourless and tasteless and possesses the ability to emulsify cosmetic preparations and foodstuffs. The commercial grade of monoglyceride produced by molecular distillation is normally non-self-emulsifying but if self-emulsifying grades are required, these can be very simply produced by the addition of a suitable percentage of the sodium salt of the fatty acid to the pure mono-glyceride.

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Soap Industry's 1955 Convention to Stress New Products

A program stressing new product development as a basis for increasing sales and profits will highlight the soap industry's 1955 convention, sponsored by the Assn. of American Soap & Glycerine Producers, Inc. on January 26-28 at the Waldorf Astoria Hotel, New York.

A symposium session will deal with how to create a new product, how to predict its market, how to introduce it and how to keep it selling.

Other regular and divisional meetings will tie in the product-planning and sales theme, including those on industrial and specialty soaps and detergents.

The convention will open Wednesday with a luncheon and divisional meeting on fatty acids and derivatives. Soap and detergents will be featured at general and divisional meetings on January 27 and 28. On January 27, a divisional meeting on glycerine will be held.

Chairman of this year's Convention Committee is M. J. Roche of Lever Brothers Co., assisted by the following members: E. Brenn, Jr., Huntington Laboratories, Inc.; E. H. Faber, U. S. Sanitary Specialties; L. Flett, National Aniline Division, Allied Chemical & Dye Corp.; B. Flynn, Pacific Soap Co.; K. E. Fulton, Beach Soap Co.; W. C. Hardesty, Acme-Hardesty Co.; I. Hoff, Colgate Palmolive Co.; V. F. Kavanagh, Continental Oil Co.; I. P. MacNair, MacNair-Dorland Co.; W. G. Werner, Procter & Gamble Co.; and M. L. Westering, Swift & Co.

Andrew Jergens Co. to Market Liquid Dishwashing Detergent

Andrew Jergens Co. is preparing to enter the detergent field with a new liquid dishwashing product called Jergen's Instant Suds. It is now being test-marketed in Dayton, O., and St. Louis, Mo.

Abstracts

The Penetration of Fat and Fatty Acid Into the Skin of the Rat. Earl O. Butcher (New York Univ., New York, N. Y.). *J. Invest. Dermatol. 21,* 43-8 (1953).—Lanolin, linoleic acid, oleic acid, ricinolic acid, and squalene were applied to the backs of rats, and biopsies taken at intervals, fixed, frozen, and sectioned. Fluorescent microscopy showed that linoleic acid penetrated the skin and could be found in the capillaries 10 min. after application. Oleic acid penetrated more slowly and little appeared in the capillaries. Lanolin and ricinoleic acid remained in the outer epidermal layers. Temp. (26° to 50°) of the application was without influence; nor did a preliminary cleaning of the skin with ether effect the rate of penetration. Thru *C.A.* 10223F.

Bactericidal Activity of Certain Fatty Acids. J. V. Karabinos and H. J. Ferlin (Blockson Chem. Co., Joliet, Ill.). *J. Am. Oil Chemists' Soc. 31,* 228-32 (1954).—Fatty acids in the C_9 to C_{12} range are bactericidal to a no. of different organisms, and this activity is markedly enhanced with increasing acidity. Optimum bactericidal activity to *Micrococcus pyogenes* var. *aureus* was exhibited by undecylic acid. Since the activity was of the same order as that of the quaternary ammonium germicides in alk. soln., an explanation for both types of germacidal activity is presented in which bacteria or some protein essential to the bacteria is considered to be surrounded by a coating of fatty groups in chem. combination with the protein. The bactericidal activity encountered in rancid fats is discussed briefly in connection with the oxidative, degradation of oleic derivs. to pelargonic acid. The possible usefulness of the bactericidal activity as a microbiol. assay method for certain fatty acids is pointed out. 28 references. Thru *C. A.* 9467g.

The Surface Tension of Human Sweat: Its Determination and Its Significance. Walter C. Randall and Carl Calman. J. Investigative Dermatol, *23,* Nn. 23,113 (1954).—"During investigations of the discharge of sweat from the minute orifice of the sweat ductules it was observed that sweat tended to form droplets over the sweat pore before spreading over the surface of the skin. In order to understand the dynamic forces involved in sweat secretions, together with the physical factors concerned in evaporation from the skin surface, we found it necessary to know the surface tension of sweat. The surface tension of sweat as it accumulates on the skin surface was found to average about 69-70 dynes per cm., although values considerably lower than this may be encountered if the sweat is contaminated with surface debris or capillary active materials. No consistent differences were observed in surface tension of sweat collected from the back, face or leg. Although surface tension *per se* appeared to have little or no systematic influence upon evaporative rate, it is pointed out that if the surface tension were reduced by capillary active substances during the process of discharge from the sweat ductule, more rapid spreading over the skin surface would tend to facilitate more rapid evaporation from a relatively larger surface area." Thru *T.A.*

A Chemical Measure of the Effect of Soaps and Detergents on the Skin. E. J. Van Scott and J. B. Lyon (Univ. of Pennsylvania, Philadelphia). *J. Invest. Dermatol. 21,* 199-203 (1953).—To det. the cause of dermatitis from the use of soaps and detergents various types of defatted keratin (stratum corneum, nails, hair) were suspended in 1% or 10% solns. of soap or detergent products for 2 hrs. at 40°. All these products are in common household use. Detn. of the exposed sulfhydryl group showed that water, even at pH 9.5 or higher, had a min. effect; Phisoderm and Dreft gave slight exposure of SH groups, Oxydol, Surf, and Fab the highest. For all the detergents except Spic and Span the buffering effect of the keratin was sufficient to lower the pH to the acid level. The alternation of the mol. structure of keratin may be an important mechanism in the production of dermatitis. Thru. *C.A.* 9723b.

Solid Shampoo. Kozo Nobori, et al. (to Kao Soap Co., Inc.). Japan 7041 ('51), Nov. 12. A mixt. (5-15 parts) from Na alkyl aryl sulfonate 100 and Na_2SO_4 60 parts is mixed with soap 10-30, Na sulfonate of higher alc. 10-20, Na_2Co_3. $NaHCO_3$ $2H_2O$ 5, and white acid clay 60 parts, and molded.—*C. A., 47,* 10, 5146, 1953.

Use of Adsorption Columns in the Analysis of Soap and Detergent-Stabilized Emulsions. R. P. Harker, J. M. Heaps and J. L. Horner (Nature, 1954, *173,* 634-635).—The components of aq. emulsions are separated by passage through a column containing Zeokarb 225 mixed with animal charcoal, followed by elution with a series of solvents. The charcoal diminishes the rate of percolation and increases the extent of adsorption, but its role may be purely mechanical. The effluent is free from org. matter; fatty acids (from soap solutions) may be recovered in 98 to 100 per cent. yield by elution with ethanol; lanolin is recovered (99 per cent) by elution with trichloroethylene; and Na cetyl sulphate is recovered (100 per cent) by use of ethylene glycol. These figures apply to emulsions of lanolin or vegetable or mineral oils stabilized with long chain electrolytes. AA. July, 1954, 1575.

Amino Acid Composition of Sweat. B. S. Pankov (Ivanovsk Med. Inst.). *Vestnik Venerol. I. Dermatol. 1953,* No. 3, 18-19.—Aspartic and glutamic acids serine, threonine, alanine, valine and methionine were detected in sweat by the method of paper chromatography; their concns. in mg./ml. are: 0.05, 0.06, 0.1, 0.06, 0.05, and 0.04. G. M. Kosolapoff. Through *Tech. Abs.*

Selecting winners of survey contest sponsored by The House for Men, Inc., Chicago, are four Midwest authorities gathered at a luncheon at the Ambassador Hotel. Left to right they are: Max Knight, merchandising manager of cosmetics, Walgreen Co.; Miss Alice Mathews, Mandel Brothers' cosmetics buyer; Miss Eleanor Nangle, *Chicago Tribune* beauty editor, and Eugene Grisko, buyer for the Answer Shop, Marshall Field & Co., Chicago. The $1,000 contest featured prizes to 20 winning women who gave the reasons they are glad the men in their lives used the company's His after shave lotion.

Detergents Sales Up, Soap Sales Down in Jan.-Sept. '54

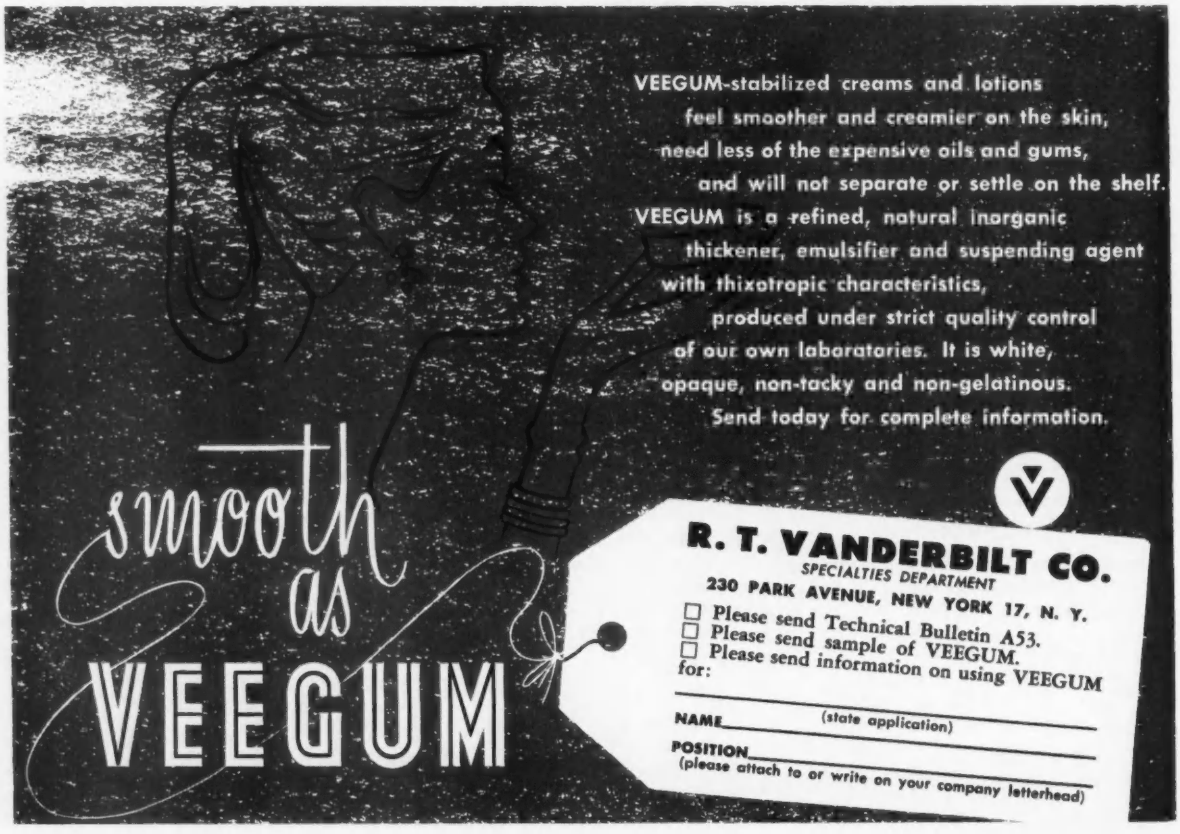
The Assn. of American Soap & Glycerine Producers announces an increase in sales of soaps and synthetic detergents for the first nine months this year, reflecting the stability of industry operations. Manufacturers participating in the quarterly sales census, representing a high percentage of industry volume, report sales of all soaps and synthetic detergents totaling 2,698,396,000 pounds, .5% ahead of 1953, with a dollar value of $608,613,000, which was 6.5% better than last year.

Sales of synthetic detergents, continuing to climb, amounted to 1,579,393,000 pounds for the nine months, up 10.7% over the same period in 1953. Dollarwise, these sales total $363,014,000 an increase of 11.7% over the first nine months last year.

Total soap sales reported for the period amounted to 1,119,003,000 pounds, valued at $245,599,000. In tonnage, this was a drop of 11.1% from the comparable period in 1953, and a decline of .5% in dollar value.

Synthetic detergent sales now represent 58.5% of the total market, an increase of 5.4% for the period, compared with 1953.

POND'S is launching Angel Skin Hand Cream with a million dollar advertising campaign in magazines, newspapers, and television. The product is asserted to counteract alkali action of soaps and detergents, and to relieve dryness and chapping. It will be backed by full page advertisements in January issues of six national magazines, with others to follow, plus TV spot campaigns in 23 major markets, and newspaper space in 25 key cities, in addition to a nation-wide publicity drive. Initial shipments to dealers will include one piece free with each purchase of 11 units. A duo-level pink and black counter display packer holds four small 25 cent jars and three large 49 cent ones.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NEWS and EVENTS

Wm. A. Poucher Wins S.C.C. Medal Award

William A. Poucher, PhC, FRPS, for the past twenty-five years Chief Perfumer and Technical Advisor to Yardley's of London, has won the annual Medal Award of the Society of Cosmetic Chemists in recognition of his pioneering scientific contributions to the perfume industry, Dr. Donald H. Powers, President of the Society, has announced.

Presentations was made at the Society of Cosmetic Chemists' Medal Award Dinner at the Hotel Biltmore, December 9 with citations of the medalist presented by Gregory Thomas, President, Chanel, Inc., and Pierre Bouillette, Givaudan-Delawana, Inc.

The Medalist was among the first to work toward reducing the empiric arts of perfumery into terms of organic chemistry, and to make his findings available to chemists throughout the world.

"He stands out as the one who has done more than anyone else in England in gaining recognition of the need for scientists and the use of scientific methods in the cosmetic industry" Dr. Everett G. McDonough, Chairman of the Award Committee says. He is the only person elected to honorary membership in the Society of Cosmetic Chemist in Britain.

Mr. Poucher, recognized as one of the greatest work authorities on perfume raw materials, has travelled widely to gain first-hand knowledge of their sources. He is author of the "bible of the perfume industry," his three volume "Perfumes, Cosmetics and Soaps," which has gone through several editions since first published in 1923 and has been translated into seven languages.

He has contributed prolifically to the growing scientific literature on cosmetic chemistry. From his laboratory have come some of the most famous perfumes ever to be produced.

During recent years Mr. Poucher has combined his enthusiasm for mountaineering and photography to become author of twenty books of mountain photographs. He is also an excellent concert pianist. Personal comments about the Medalist from colleagues describe him as typically English, a tall, wiry man of 62 possessed of fabulous energy and tremendous charm.

William A. Poucher

Colgate-Palmolive's New York Quarters under Construction

Construction of the future Colgate-Palmolive Co. headquarters at 300 Park Ave., New York, is well underway.

To be known as the Colgate-Palmolive Building, it will occupy the entire block front opposite the Waldorf-Astoria Hotel between 49th and 50th Streets. Approximately 1,500 office workers will transfer from the company's present offices in Jersey City, N. J. They will occupy over 230,000 square feet in the 25-story air-conditioned building which is scheduled for completion next summer.

The move of the Colgate Home Offices to New York City will provide additional space for Colgate plant expansion in Jersey City, where the company occupies an area equal to 10 city blocks.

S.C.C. $1000 Award for Basic Research Aiding Cosmetics

The Society of Cosmetic Chemists has announced a new award of $1,000 to be presented annually to the author of "the most important basic research" in the fields contributing to cosmetics.

"The new award," according to Dr. Donald H. Power, society president, "is an important part of our program to recognize and encourage basic research as the foundation for the development of new and better cosmetics."

The first award will be made at the Society's May 1955 meeting, he added, and a Special Award Committee, under the chairmanship of James H. Baker, has secured the necessary funds through contributions from many cosmetic manufacturers and suppliers.

A separate committee of distinguished specialists, under the chairmanship of Dr. Paul G. I. Lauffer, will review the 1954 literature for "outstanding contributions to the cosmetics industry," Dr. Powers stated. The members of this committee are: Dr. Milton Harris, Harris Research Laboratories; Dr. G. Robert Clarke, U. S. Food and Drug Administration; Dr. A. I. Gebhart, Colgate-Palmolive Co.; Dr. Franz Herrmann, New York University Skin & Cancer Clinic; Dr. Lloyd Hazleton, Hazleton Laboratories; and Dr. Emory I. Valko, Onyx Oil & Chemical Co.

Daggett & Ramsdell Sues Firm over Debutante Trademark

Daggett & Ramsdell, Inc., New York, is seeking an order restraining G. A. Kayser & Sons, Inc. of Buffalo, N.Y., from using the trademark "Debutante" in marketing nail polish remover, peroxide and wave sets. The complaints, filed in Federal Court, contends that the New York company holds exclusive rights to the trade name. The suit also seeks an accounting of damages to the plaintiff.

Bernard Polak Named President of Polak's Frutal Works, Inc.

Polak's Frutal Works, Inc., Middletown, N. Y., announces that Bernard Polak has been named President to succeed his late brother, Frits J. Polak, who succumbed in the tragic K. L. M.

Bernard Polak

accident in Shannon, Ireland, on September 5.

Graduate School to Offer Fats, Oils Chemistry Course

A novel Graduate School course will be offered to chemists in the New York area at the Polytechnic Institute of Brooklyn in the spring of 1955 in the evening. After a lapse of some eight years during which time no comparable graduate school level instruction was available in the New York environs, the Institute will offer again a special topics course entitled "Chemistry of the Fats and Oils," a one semester series of 15 two-hour lectures on Wednesday evenings. The course has special appeal to chemists in the various fats and oils industries and may be taken on a degree or non-degree basis.

The subject matter will include latest theory, reaction mechanisms, and new developments in the field. The occurence, distribution, structure, isolation, purification and analysis of animal and vegetable fats and oils will be covered. Hydrolysis, saponification, hydrogenation, oxidation, autoxidation, ozonization and polymerization of fats and oils and the preparation and properties of fatty acids and their derivatives will receive special emphasis. Drying oils, alkyd resins and the chemical utilization of waste fats will be treated in some detail. Dr. Norman O. V. Sonntag of the Research and Development Department of Colgate-Palmolive Co., Jersey City, N. J., will be in charge of the course.

Du Pont: Use of Aerosols for Perfumes, Colognes Spreading

Over a dozen manufacturers are distributing perfumes and colognes in aerosols, introduced first to the public nine months ago, reports E. I. Du Pont de Nemours & Co.

The manufacturers and distributors and their products listed by Du Pont are:

Bourjois, 'Evening In Paris Perfusion' spray mist; D'Estree, 'D'Estree Numero 7' perfume; 4711, 'Ice Sprae' cologne; Dorothy Gray, 'Dorothy Gray Atomist' cologne; J. Warren Kane, 'Craven' cologne; Lantré Cosmetics, 'Lantré Mist' perfume; Lentheric, 'Tweed Mist' toilet water.

Also, Parfums Corday, 'Corday Fame', 'Toujours Moi' and 'Toujours Toi' colognes; Primrose House, 'Chiffon Mist' cologne; Helena Rubinstein, 'Cologne Foam'; Allen B. Wrisley Co., 'Gay Caress' deodorant and after-bath mist; Zonite Products Corp., 'Jasmin-Glorioso Extra' cologne, and Count Dorelis, 'Count Dorelis' perfume.

Artra Cosmetics, Inc. will become a division of Union Pharmaceutical Co. on January 1, 1955, Max A. McDaniel, vice-president and general manager of Union Pharmaceutical Co. announces.

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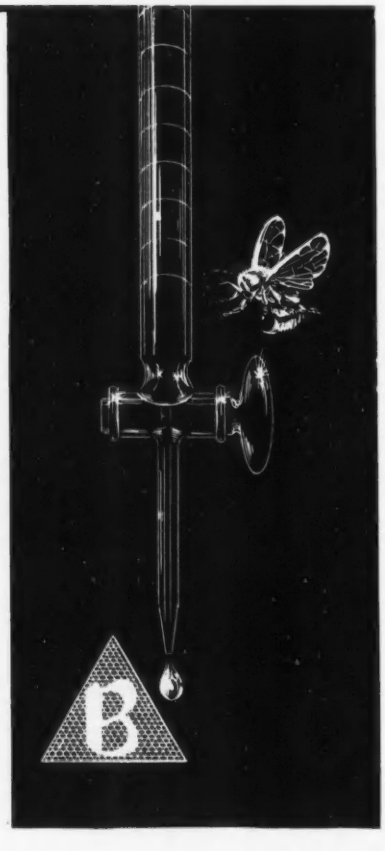

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D&O president John L. Cassullo discusses with his national sales group the operation and function of the newly enlarged aerosol testing laboratory.

Dodge & Olcott Holds Annual Week-Long Sales Meeting

Dodge & Olcott, Inc. officers, executive and technical personnel and the entire national sales staff came together for a week of intensive discussion, demonstrations and plant tours during the annual national sales meeting at the Hotel New Yorker.

The week opened with a cocktail party and a general "get together" on Sunday evening; the meeting progressed with a Monday morning discussion on administrative subjects by president, John L. Cassullo, and a general market analysis of essential oils by vice president, V. H. Fischer. A perfume session followed with a comprehensive explanation of the latest developments in the fields of industrial odorants, aerosol products, cosmetic perfumery and perfume specialties by D&O perfume chemists, Gus Schwindeman, Herbert Kainik and Mysie Emmet.

Early Tuesday morning the entire group was taken by chartered bus to a special morning tour of the Colgate-Palmolive Co. plant in Jersey City, arranged by George Livesay, and an afternoon trip to Suffern, N. Y., where through the courtesy of Dr. Edward Jarmus and Thomas Chisholm they were escorted through the plant of Avon Products, Inc.

Back to New York on Wednesday, the Flavor Session included a discussion of candies and confections generally by Frank Pond; Spiceolate and Spisoresin flavors, by Claude Johnstone; vanilla products by Charles Dwyer; and flavors for beverages and pharmaceuticals by Willem Lasthuysen.

The Thursday meeting was held on the premises of the recently constructed D&O dry soluble seasonings plant in Hawthorne, N. J., where discussions and demonstrations of plant equipment and methods were given by William Ammon, Jack Hohhof and other lab and sales personnel of this new division; and the newly appointed director, Hatton B. Rogers, was introduced to the sales group.

On Friday the meetings were wound up with a morning visit to the labs and executive offices of the New York office at 180 Varick St., and an afternoon "question and answer" session back at the hotel. Thus concluded another D&O annual national sales meeting.

All sales personnel from the D&O Branch Offices in Boston, Philadelphia, Atlanta, St. Louis, Cincinnati, Chicago, Detroit, Toronto, Los Angeles and San Francisco attended, and sales discussions were led by sales manager, Paul Sperry, and sales coordinator, Jules Bauer.

Package Designers Council Sponsors Competition, Exhibit

A special Exhibit featuring the Award winners and selected entries in the 1954 Packaging Competition of the Package Designers Council will take place at the American Management Assn.'s Packaging Exposition in Chicago from April 18 through 25, and in New York City at the American Institute of Graphic Arts from February 5 through 20.

Winners in the competition will be announced at a gala luncheon and reception on February 9 in the Hotel Plaza, New York.

H. Gregory Thomas of Chanel, Inc., E. R. Durrer, president of Givaudan-Delawanna, Inc., Andre Givaudan, and Benson Storfer of Parfums Corday enjoy a chat at the annual cocktail party of Givaudan-Delawanna, Inc.

Forecast Magazine Initiates "Guideposts to Beauty"

Forecast Magazine is inaugurating a new series of guideposts to beauty, with good grooming pointers to home economics teachers and students, written by Edyth Thornton McLeod. An excerpt from her forthcoming book, "Make Yourself Over," will also appear in the January issue.

N.B.B.M.A. Board of Directors Dinner-Meeting on January 25

The board of directors of the National Beauty and Barber Mfrs. Assn. will hold a dinner-meeting on January 25 at The Advertising Club, New York City.

Point-of-Purchase Advertising Institute Forum January 26

The date of the Point-of-Purchase Advertising Institute's first merchandising forum on point-of-purchase advertising has been changed from December 8, 1954 to January 26, 1955, at the Hotel Roosevelt, New York City.

Over 300 Attend Annual Givaudan-Delawanna Party

More than three hundred members of the perfume, cosmetic and allied industries attended the annual Fall reception and cocktail party tendered by the Givaudan-Delawanna, Inc., on November 18. The party took place at the University Club in New York and was held during a visit to America of Andre Givaudan. It was attended by many of the most prominent men in the industry.

Credit Men Hold Panel Discussion on Use of Notes

The Drug, Cosmetic and Chemical Credit Men's Association conducted a panel discussion on "The Note as a Collection Instrument" at its November 18 meeting. The forum presented the second in a series.

BYMART-TINTAIR is backing Hair Magic, its combination shampoo and hair colorer in ten shades, with a 46-newspaper advertising campaign in 34 markets.

At recent CIBS meeting in New York: seated left to right, are David Warner of Fleuroma, speaker Dr. Robert L. Swain, editor of *Drug Topics* and *Drug Trade News*, and Wm. S. Fairhurst, vice-president and president of CIBS. Standing, left to right, are G. A. Kaempkes of Pacquin's, Louis Kazin, associate editor of *Drug Topics*, Robert Ring of Hewitt Soap Co., H. Anderson of H. Kohnstamm, Lamson Scovill of Scovill Mfg. Co., and Richard Tomlinson of Topics Publishing Co. Messrs. Kaempkes, Ring, Anderson and Scovill are all officers of the organization.

Retail Distribution Changing, Editor Points out to CIBS

The pattern of retail distribution is undergoing revolutionary changes, Dr. Robert L. Swain, editor *Drug Topics* and *Drug Trade News*, pointed out at the November meeting of the Cosmetic Industry Buyers & Suppliers. As a result, Dr. Swain asserted, industry must give careful attention to the distributional problems and the competitive pressures that are involved. Throughout it all, however, the retail drug store seems to remain "the heavy duty outlet of the cosmetic industry," he added.

Warner-Hudnut Net up 18%; Sales Reach Record High

Warner-Hudnut net has increased 18 per cent, with sales reaching a new high of $35,933,000 for the first nine months of 1954.

A. H. Busiel, of Lady Esther, Estate Suit Settled

A legal battle involving the Lady Esther Estate of the late Alfred H. Busiel, head of the cosmetics firm, has been ended with a $250,000 settlement for his sister, Syma Busiel, of Glencoe, Ill. She has dropped a claim to the firm's assets as co-founder. The estate amounted to $3,000,000.

LENTHERIC'S alternate-week sponsorship of "Chance of A Lifetime," starring Dennis James, Fridays on the Du Mont TV Network, is bringing impressive sales results, according to a publicity release by the network. The program is said to mark the first time that a major perfume house is backing a night-time network television show, marking a reverse of the usual prestige "oh-so-precious" theme, the release asserts.

AMERICAN AROMATICS, INC.

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SQUEEZED BY LAVENDER PRICES?

The high price of the Spike-Lavandin-Lavender group is today forming serious examination of soap, cosmetic and lotion formulae. American Aromatics, Inc., having developed a series of successful Lavender group extenders at the time of the Korean price emergency, suggest to perfumers and purchasing agents their consideration of these tested, low cost Extenders.

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Cosmetic Career Women Hold 2nd Luncheon-Meeting

The second luncheon-meeting of Cosmetic Career Women was held on Tuesday, November 30, in the Palm Room of the Waldorf-Astoria Hotel in New York City.

Guest speaker was Lt. Frances Stonesifer of the Waves, who has just returned from a tour of duty in Norway where she was the first U. S. Navy woman to be so assigned. She discussed her experiences there as well as the special necessity of good grooming for women in the armed forces, and the program currently being sponsored by the toilet goods industry.

Fritzsche 25-Year Club Scores Record Attendance

Forty members and guests of Fritzsche Brothers' Quarter-of-a-Century Club—the largest assemblage in the Club's history—met for cocktails and dinner in the Colonial and Manhattan Rooms of the New York Athletic Club, to honor this year's new members—George H. Ammersbach, Edward J. Potorski, Joseph A. Schneider and Francis C. Pinello of the New York staff, and Erhard Kuhnert of the Clifton plant, who was unable to attend.

As Chairman of the Board and himself a sixty-years-of-service member, Mr. Frederick H. Leonhardt toasted the group and extended to each the Club's most cordial welcome. He mentioned the rather astonishing fact that the employees'-years-of-service represented at this meeting amounted to well over 1200 years, and that the Club since its inception had taken in a total of 64 twenty-five-year employees.

Master-of-Ceremonies was Fritzsche President John H. Montgomery.

In addition to Mr. Leonhardt and Mr. Montgomery, and the former's Secretary, Miss Mary G. Neary, the party's attendance included most of the active Club members and the following officers: Vice-Presidents H. P. Wesemann, Dr. Ernest Guenther and Fred H. Leonhardt, Jr.: Treasurer John L. Cassullo; Secretary D. A. Neary; Assistant Secretary Arthur J. Hemminger; Assistant Treasurer Gustave A. Wohlfort; Comptroller Ellis F. Merkl.

Cultural Activities of French Technicians of Perfumery Shown

An excellent dinner, good fellowship and entertainment marked the dinner meeting of the Technicians de Langue Francaise de la Parfumerie at the Le Cyrano restaurant on the evening of November 30. The dinner was well attended and entertainment was supplied by several of those present, in the form of humorous anecdotes and tall tales.

The highlight of the meeting was the reading of a scientific paper by Marcel Foy who added his customary commentaries. A resume of the meeting's cultural activities was handed out at the end of the evening in the form of the customary illustrated cards which were received with unusual applause. The complete success of the affair was due largely to the work of Gerald Bessinger who arranged the meeting.

Mich. Chemical, Allied Industries Assn. Names Officers

The Chemical and Allied Industries Assn. of Michigan has named the following officers for 1955: president, Robert Watt: vice-president, Lorne Morrison; treasurer, William Harlton; and secretary, Glenn Hicks.

Beverage Flavors Makers Meet; H. E. Schimidt '55 President

H. E. Schmidt, of the E. Berghausen Chemical Co., was elected president of the National Mfrs. of Beverage Flavors at its recently held 49th annual convention in Philadelphia, Pa. Other officers elected were: vice-president, C. D. Little, Double Cola Co.; treasurer, Frank A. Robbins, Theonett & Co.; and attorney and secretary, John S. Hall.

The following were named to the board of directors: J. B. Green, Jr., Green & Green, Inc.; T. C. Spencer, John Mulhern Co.; Frampton King, Coca Cola Co., Atlanta, Ga.; S. M. Kleinschmidt, Liquid Carbonic Corp.; Harold Mutch, Whittle & Mutch; and Robert Pulver, H. Kohnstamm & Co.

In his report, president H. E. Schmidt, noting the interest of the members in the welfare and prosperity of the bottlers, observed: "The bottlers are faced with some extremely critical problems right now. They have the questions of cans versus bottles, of dietetic beverages, and of the size of bottles to worry about, besides the ever-present specter of prices. It is reported that 'Mr. Big' is going to depart from his traditional one-size bottle and try out various sized containers in selected markets. All these new ideas pose terrifically difficult questions for the bottlers and these problems must be satisfactorily solved for survival in these competitive days."

Among the papers delivered were: "The Use of Aromatics in Beverage Flavors," by Harold L. Janovsky, Virginia Dare Extract Co., and "The Impact of Canned Beverages to the Bottling Industry in California and Nevada," by George Culley, secretary, California & Nevada Mfrs. of Carbonated Beverages.

More than 1200 years of service are represented in this picture of Fritzsche Brothers' Quarter-of-a-Century Club members and their guests taken at recent cocktail party and dinner in honor of the club's new members. Standing at the head table are, left to right: Vice-President H. P. Wesemann, Miss Mary G. Neary, Chairman of the Board F. H. Leonhardt, President John H. Montgomery, and Vice-President Fred H. Leonhardt, Jr. Seated guests include other officers and club members.

The above bronze plaque was presented by the Mennen Co. to Jacob Manheimer who was the first salesman to call on the company when it was founded. The presentation took place at a dinner attended by 350 suppliers. Mr. Manheimer is still active in the essential oil industry, as he has been since 1876. He is 90 years old—plus.

Bishop Offering Oversubscribed; Stock Exchange Listing Seen

Instant oversubscription of the 250,000 shares issue of Hazel Bishop, Inc. common stock is reported by Hayden, Stone & Co., who head the group of underwriters. The 10 cents par value stock, offered at $8 per share, opened for its first full trading day at $9½ and rose to $10½.

Listing of Hazel Bishop on the American Stock Exchange is expected.

Formed in 1948, company sales for the fiscal year ending October 31 were in excess of $12,500,000, with net earnings after taxes in excess of $1,200,000, according to an estimate by Raymond Spector, board chairman and controlling stockholder.

Sponsors Annual Variety Packaging Competition

Entries to the 19th Annual Variety Packaging Competition are now being accepted, *Variety Store Merchandiser*, trade paper of the variety store field and sponsor of the competition, announces. All packages, new or old, sold in any variety chain during 1954 are eligible.

Dow Chemical Co. Takes over Versenes, Inc.

Dow Chemical Co. has purchased Versenes, Inc. of Framingham, Mass., manufacturers of chemical specialties. Versenes, Inc. makes chelating agents used in the detergent, soap, pharmaceutical and chemical industries.

F.T.C. Invalidates Revlon's Beauty Shop Jobbers Contracts

The Federal Trade Commission has issued an order invalidating contracts negotiated by Revlon with 157 beauty shop jobbers, charging that the agreements limit these jobbers to carry solely Revlon's nail enamels, to competing brands of lipstick and other cosmetics only if they are part of a complete treatment and make-up line, and to no other nail enamel remover except under their own brand names.

The F.T.C. held that the agreements served to substantially lessen competition.

Revlon has filed a motion to re-open the case, charging that the volume concerned is not large enough to affect competition in the entire cosmetics industry, and that the agreements have not disrupted the buying practices of jobbers, and that free access to all markets is available to competitors through other jobbers.

According to the F.T.C., Revlon's sales through beauty shop jobbers reached $1,500,000 in 1949. According to the agency, there are 100,000 beauty shops in the U.S., served by 1,500 jobbers. Revlon is said to sell to 176 of these jobbers, and to have contracts with 157 of them.

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COSMETIC RAW MATERIAL HEADQUARTERS

SELECTED BOOKLIST

for Perfume, Cosmetic, Soap and Flavor Chemists

1. THE HANDBOOK OF SOLVENTS.

By Leopold Scheflan and Morris Jacobs. The most useful reference work on solvents available today. The properties, uses, action and technology of solvents are covered in this comprehensive handbook. Two major sections: 1. Covers theoretical aspects and practical attributes of solvents such as solvent action, solvent power, evaporation and evaporation rates and limits of inflammability. Discusses in detail solvent recovery, stresses safe practices; 2. The physical constants of over 2,700 liquid compounds are tabulated. Arrangement such that you can compare, at a glance, the so-called literature constants with the commercial constants of each solvent. 728 pp., 7 x 10, 17 illus. $10.25 postpaid.

2. SOAPS AND DETERGENTS.

By E. G. Thomssen, Ph.D. and J. W. McCutcheon, M.A., D.C.I.C. A volume for the practical soap maker. Synthetic detergents thoroughly discussed. Tabulates 250 surface active agents, their classification, trade names, manufacturers and application in the soap industry. Covers continuous soap making processes, soap perfuming and coloring, equipment, processes and methods. Up-to-date, authoritative. 511 pp., 66 illus. $9.25 postpaid.

3. THE FUNDAMENTALS OF DETERGENCY.

By William W. Niven, Jr., Research Chemist & Consultant, Midwest Research Institute. A thorough-going treatment of the theory and practical applications of detergency. Discusses: 1. The effects of composition, concentration, temperature and added electrolytes on the nature and properties of aqueous detergent solutions; 2. The fundamental actions which constitute detergency and the role of detergents in aiding these actions; 3. The means of utilizing the various fundamental detergent actions in laundering (a typical application). 260 pp., illustrated. $6.75 postpaid.

4. MANUAL FOR THE ESSENCE INDUSTRY.

By Erich Walter. Comprises modern methods with formulas for making all kinds of essences for liquors and alcoholic drinks, fruit juices and jams, mineral waters, essences of fruits and other vegetable raw materials, essences for confectionery and pastry. Describes raw materials and laboratory practice. Discusses taste and the transfer of flavor to foods and beverages. A standard work for many years. Contains 427 pages, 37 illustrations. $8.25 postpaid.

5. PERFUMERY SYNTHETICS AND ISOLATES.

By Paul Z. Bedoukian, Ph.D. This carefully compiled volume supplies a genuinely felt want for authoritative data on perfumery synthetics. The work contains the history, chemistry, physical and chemical properties, manufacture, uses, and other pertinent data of the principal perfumery compounds; and covers the important perfumery synthetics. A complete index adds to the value of this useful book. 488 pages, $8.75 postpaid.

6. FORMULARY OF PERFUMERY.

By R. M. Gattefosse. Translated from the French. Contains typical examples of tested formulations and methods of preparation of perfumes and cosmetics. Part I covers synthetic perfumes and 100% compositions. A table of floral families is included with numerous empirical formulas. Part II covers alcoholic perfumes, toilet waters, extracts and various types of perfumes concluding with a formulary of cosmetology with adequate discussion of and formulas for beauty creams, various cosmetic specialties, rouges, lotions, dentifrices, hair products and nail preparations. 252 pages, 6x9 in., cloth covers. $4.25 postpaid.

7. HANDBOOK OF COSMETIC MATERIALS.

Their Properties, Uses, and Toxic and Dermatologic Actions. By Leon Greenburg & David Lester. With a chapter on The Skin by Howard W. Haggard. Contains alphabetical listing, with frequent cross references, of information on approximately 1,000 substances. For each compound gives: Formula (including collateral names); Properties; Uses, Toxic Action; Dermatologic action. Exhaustive bibliography. Essential for Manufacturing Chemists, Cosmetic Industry, Chemical Specialties Industry, Dermatologists, Allergists, Industrial Hygienists. Published 1954. 467 pp. $12.75 postpaid.

8. MODERN COSMETICOLOGY.

By Ralph G. Harry. Partial contents: Emulsions, Cleansing Creams, Milks and Lotions, Acid Creams, Face Packs and Masks, Mud Creams, Vanishing Creams, Powder Creams, Lubricating Creams, Astringents and Skin Tonics. Lipstick, Make-up. Face Powders. Sunburn and Suntan Preparations. Deodorants. Depilatories. Antioxidants. Bath Preparations. Bath Oils and Emulsions. Foam Baths, Hand Creams and Lotions, Dental Preparations. Mouthwashes. Shaving Preparations. Hair Tonics and Lotions. Hair Creams and Fixatives. Permanent Waving Solutions. Hair Setting Lotions and Hair Lacquers. Hair Shampoos and Soapless Detergents. Manicure Preparations. Eye Lotions. Baby Preparations. Foot Preparations. Insect-Bite Preparations. Humectants. Acne Preparations. Coloring of Cosmetic and Toilet Preparations. 514 pp. $12.25 postpaid.

9. THE ESSENTIAL OILS.

By Ernest Guenther, Ph.D. This monumental six-volume work is comprehensive, authentic. VOL. I. covers: Origin and Development of Essential Oil Industry, Chemistry and Function of Essential Oils in Plant Life, Products of Essential Oils. 448 pp., $7.75 postpaid . . . VOL. II gives detailed data on several hundred of the more important constituents of essential oils. 852 pp. $12.25 postpaid . . . VOL. III describes the oils of plant families Rutaceae (with special emphasis on citrus oils) and Labiate. 777 pp., $12.25 postpaid . . . VOL. IV covers the individual oils in six plant families not covered in Vol. III. 752 pp., $12.25 postpaid . . . VOL. V is of special importance to the flavor chemist. 507 pp., $12.25 postpaid . . . VOL. VI, the final volume, is of interest to the pharmaceutical, flavor, and perfume industries. Features wintergreen, sweet birch, valerian, mustard, onion, hops, etc. Also deals with pine oils and turpentine. Includes table showing the taxonomic classification of all the essential oils described in all six volumes. 481 pp., $12.25 postpaid.

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Colgate-Palmolive Reorganizes Toilet Goods Division

Several key personnel changes at Colgate-Palmolive Co., Jersey City, N. J., on the organizational level have been disclosed by R. E. Hilbrant, vice-president in charge of the Toilet Goods Division. The moves were said to be dictated by the expansion requirements of the division.

Miles C. Alverson, Food Store Sales Promotion Manager, was named to the newly created post of Sales Administrative Assistant to H. P. McClure.

George T. Flint, Eastern Divisional Manager since January, 1953, has been appointed to the Home Office Toilet Article staff as Assistant Field Sales Manager.

J. B. Bundren, formerly District Manager in Atlanta and Cleveland, has been named Eastern Divisional Manager.

Leto J. Hill, who has been Buffalo District Manager since 1953, has been promoted to Food Store Sales Promotion Manager.

John K. Eastham has been transferred to the Home Office Toilet Article staff as Assistant Merchandising Manager. He formerly was Toilet Article District Manager in Baltimore for nearly three years.

Joseph J. Hirschberg, formerly New York District Supervisor, was appointed to the Home Office Toilet Article Staff as Assistant Merchandising Manager.

M. C. Alverson

G. T. Flint

J. B. Bundren

L. J. Hill

J. K. Eastham

J. J. Hirschberg

Association to Sponsor Annual Series of Variety Goods Shows

The 1955 Spring 5 cent to $5 merchandise shows scheduled by The National Assn. of Variety Stores, Inc. will be held January 16-18 at the Baker Hotel, Dallas, Tex.; January 23-25, Radio Center, Charlotte, N.C.; January 30-February 3, La Salle Hotel, Chicago, Ill.; February 13-15, at the Municipal Auditorium, Atlanta, Ga.

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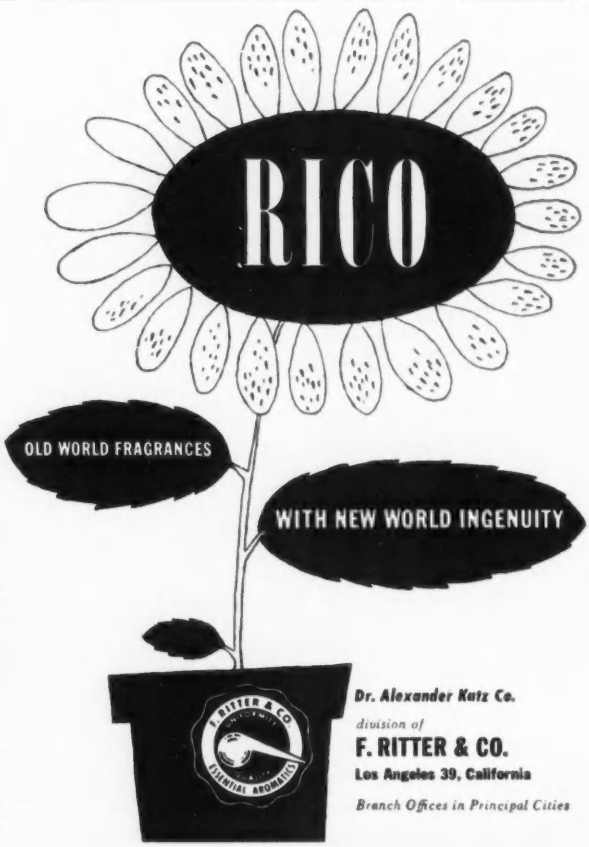

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Mich. Chemical, Allied Industries Assn. Life Memberships

At the "Old Timers and Past Presidents Meeting" of the Michigan Chemical and Allied Industries Assn. life memberships were awarded to: R. P. Cole, formerly of Eaton Chemical & Dyestuff Co.; Wm. Lowry, formerly of Merck & Co.; Roy L. Clark, formerly of Hazel Atlas Glass Co.

A moment of silent prayer was observed for the 18 members who have passed on since the formation of the Michigan section in 1933.

Golf Trophies were won by John P. Lonsberg, Monsanto, who defeated Dr. J. Pearson Stanley, R. P. Scherer Corp. for championship. Robert Watt, Western Solvents, was second flight winner and Daniel F. Bradley, Shell Chemical, was third flight winner.

The association held a meeting on November 29 at the Detroit Leland Hotel; featured speaker was Dr. J. K. Dale of the Upjohn Co., whose topic was "Progress in Pharmacy."

The annual Christmas party was held on December 4 in the Grand Ballroom of the Sheraton-Cadillac Hotel.

Heyden Chemical Corp. Buys Nuodex Products Co. Stock

Heyden Chemical Corp. has acquired all the stock of Nuodex Products Co., Inc. of Elizabeth, N. J., and an affiliated real estate company for an aggregate purchase price of approximately $2,800,000, Simon Askin, president of Heyden, has announced. Nuodex is a leading maker of chemical additives for the paint, plastic and other chemical process industries.

George Uhe Describes Far East Conditions to Perfumers Society

A grim picture of the social and economic conditions in the Far East was painted by George Uhe in an interesting address covering his recent trip there, before a large audience at the November meeting of the American Society of Perfumers. After President Everett D. Kilmer disposed of routine business Pierre Bouillette was called upon to introduce the speaker of the evening, George Uhe, president of the George Uhe Co., Inc. With his usual humor Mr. Bouillette did so with marked success.

The extent of poverty throughout the Far East, the over-population of the whole area coupled with the still growing population is appalling, Mr. Uhe pointed out. Overpopulation and poverty present problems for which no one seems to have a ready solution; and the social climate is such as to enable Communism to make a strong appeal to the masses. There is a surplus of labor and wages are very low. In some places it is cheaper to hire six to eight human jackasses to pull a truck than it is to maintain animals for that work. The growing of many products of the soil, including plants for essential oils, is being abandoned to grow food.

Because the United States has been of financial assistance and has not been a colonizer, this country is respected in Japan.

In general foreigners are disliked in the Far East and the white man's position is at its lowest ebb.

Many firms are irresponsible. Essential oils emanating from Indonesia have been set back 20 years in quantity and quality. Only a semblance of old Dutch standards exists.

Very little camphor oil is coming from Formosa because of the low prices for natural camphor; and camphor oil is a by-product of it. The country may be called an armed camp today.

As to citronella, no large quantity is produced or owned by any one firm due to lack of capital. Moreover its distillation is very primitive. Advances in price are due to the many local speculators. Ho oil is a government monopoly and less than 100 tons of it are produced annually.

Hong Kong is the shipping and receiving depot of China. The Chinese government does all the buying and selling.

In Penang considerable smuggling of patchouli and canaga oils takes place. The practice is to judge the quality of patchouli oil by solubility and of cananga by ester content. Recent arrivals are poor in quality.

In India the 1954 lemongrass crop was over 500 tons with Europeans taking the bulk of the exports.

The world's growing population is increasing essential oil demand, which in turn helps to raise prices, he concluded.

Among Our Friends

MR. and MRS. BURTON T. BUSH celebrated their fiftieth wedding anniversary on December 15. The celebration was held among immediate relatives at the Molly Pitcher Hotel, Red Bank, N. J. Mr. Bush, a pioneer in the synthetic aromatic chemical industry, retired from active management of the Aromatics Division of the Dow Chemical Co. in September, 1953, after nearly fifty years in the aromatic industry. He served as first president of the Salesmen's Assn. of the American Chemical Industry, and as Chairman of the D.C.A.T. Section of the New York Board of Trade in 1927. Mr. and Mrs. Bush are now living at 1600 Gay Drive, Orlando, Fla.

David J. Warner

DAVID J. WARNER has joined the Fleuroma, Inc. sales force. He has been sales manager for a private brand soap manufacturer for the past 14 years, and is first vice-president of CIBS.

ANDREY KRAJKEMAN, plant manager of Soflor Ltd., Perivale, London, England, visited Polak's Frutal Works, Inc., Middletown, N. Y., to attend staff conferences and to exchange technical information. Soflor Ltd. is the associated company of Polak's Frutal Works. Mr. Krajkeman returned on the same cruise of the Queen Mary which also carried the Queen Mother Elizabeth.

B. K. Tremaine

BRECKINRIDGE K. TREMAINE, formerly associated with E. I. Du Pont de Nemours & Co., has joined Rhodia, Inc., New York, as technical director of its industrial "Alamask" Reodorant Div. He has been acting technical director at Rhodia since April.

BYRON SPENCE has been elected vice-president in charge of sales at the Seaplant Chemical Corp., New Bedford, Mass. During the war years he was Chief of the Food Branch of the lend-lease operation under Administrator Edward Stettinius.

B. A. Blentge

B. A. FLENTGE, managing director of N. V. Chemische Fabriek "Flebo," Hoogezand, Holland, visited the U. S. for a stay of several weeks, during which he called on various figures in the trade with a view toward developing new products for the American market.

H. L. JANOVSKY, technical director of Virginia Dare Extract Co., Inc., has been appointed chairman of the Extract and Flavoring Division of the 1954 Travelers Aid Campaign. He also addressed the 49th convention of the National Mfrs. of Beverage Flavors on "The Use of Aromatic Chemicals in Beverage Flavors" in his capacity as chairman of the FEMA Scientific Research Committee.

CHARLES E. WEEKS has joined the New England sales staff of Polak & Schwarz, Inc., New York, N. Y. This is in keeping with the company's continuing policy to augment their sales and service personnel in order to bring closer, individual assistance to their trade. He has spent an intensive study period at the Polak & Schwarz New York sales' headquarters, as well as in the manufacturing plants and laboratories in New Jersey and New York, familiarizing himself with the special knowledge and services the company has to offer.

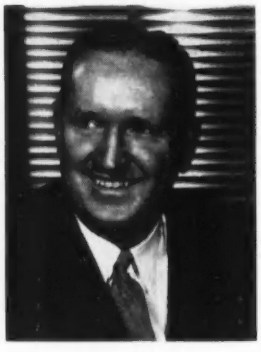
JACQUELINE COCHRAN has received the International Air Federation's Medal as the year's outstanding pilot.

BARONESS VON LANGENDORFF, of Parfums Evyan, recently gave a Carlton House luncheon in honor of Archduchess Alexandra of Hapsburg.

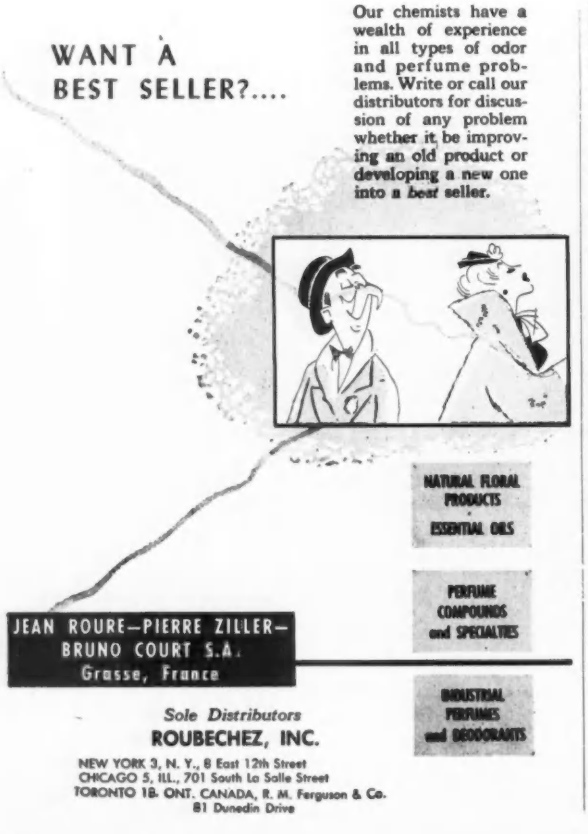
JULE GORDON has been appointed general sales manager of Charles Antell.

EDWARD J. GOETT has been elected a director and vice-president of Atlas Powder Co., heading the company's Chemicals, Darco and Commercial Development Departments. Formerly a director and sales development manager of Chas. Pfizer & Co., he joined Atlas last July to head the newly-formed Commercial Development Department.

O. G. KENNEDY, general sales manager of the Lehn & Fink Div., was elected to the board of directors of Lehn & Fink Products Corp. at its annual stockholders meeting.



O. G. Kennedy


WANT A BEST SELLER?....
Our chemists have a wealth of experience in all types of odor and perfume problems. Write or call our distributors for discussion of any problem whether it be improving an old product or developing a new one into a best seller.
NATURAL FLORAL PRODUCTS
ESSENTIAL OILS
PERFUME COMPOUNDS and SPECIALTIES
INDUSTRIAL PERFUMES and DEODORANTS
JEAN ROURE—PIERRE ZILLER—BRUNO COURT S.A.
Grasse, France
Sole Distributors
ROUBECHEZ, INC.
NEW YORK 3, N. Y., 8 East 12th Street
CHICAGO 5, ILL., 701 South La Salle Street
TORONTO 18, ONT. CANADA, R. M. Ferguson & Co.
81 Dunedin Drive

ANDRE GIVAUDAN, a director of L. Givaudan & Cie., S. A. and its associate organizations, arrived in the United States recently for his semi-annual visit to this country. During his stay in this country, Mr. Givaudan met with old friends in the industry and discussed with them current industry problems encountered both here and abroad. He left the United States on November 20th for his return trip to Paris and Geneva.

JOHN S. ALGEO, formerly vice-president and general sales manager of Hazel-Atlas Glass Co., has relinquished his sales activity duties. A member of the board of directors, he will remain active in the company's management as vice-president. J. H. MAJESKY, J. NELSON McNASH, and J. C. NEUHART, who have long been associated with the company's sales activity, were each elected a vice president-sales.

ALBERT M. BEHRENS has resigned as advertising director of Coty and has joined Dancer-Fitzgerald-Sample, Inc. as account executive for Lady Esther.

WILLIAM F. SIEGEL has been appointed advertising director of Coty, Inc., succeeding ALBERT M. BEHRENS who has resigned to join Dancer-Fitzgerald-Sample, as reported elsewhere in this issue. Mr. Siegel was previously manager of production and

William F. Siegel

purchasing with Popular Club Plan, mail-order firm.

ANTHONY ESPOSITO has been elected a vice-president by Bymart-Tintair. He is in charge of research, product development, quality control and manufacturing for the company.

ROBERT N. JACOBSON, secretary and sales manager of B. H. Krueger, Inc., and MRS. JACOBSON announce the birth of their daughter, PATTI LYNN.

Wickliffe Shreve

WICKLIFFE SHREVE, general partner of the investment firm of Hayden, Stone & Co., has been elected a director of Hazel Bishop, Inc. He is the Governor of the Assn. of Stock Exchange Firms and the former Governor of the Investment Brokers Assn. of America.

DR. LOUIS E. MARCHI has been appointed Assistant Director of Research for the Toni Division of The Gillette Co.

PHIL KALECH, one of the founders and former executive vice-president of Tintair, has been named president of Flamemaster Chemicals, Inc., a subsidiary of Litton Chemicals of Beverly Hills and Culver City, Cal. He was formerly associated with the Toni Home Permanent Co. as vice president-sales director; Pepsodent Co. as general sales manager; and the BB Pen Co. as vice president-sales director.

DR. L. B. PARSONS, director of research and development, Lever Brothers Co., and DAVID J. BUNNELL, general manager of the buying division, have been elected vice-presidents of the company.

HELEN BUCALO has been appointed packaging designer at Tussy Cosmetiques.

ROBERT L. ROACH, export credit manager at Colgate-Palmolive Co., was elected chairman of the Drug & Chemical Export Club of the Foreign Credit Interchange Bureau at the Club's annual meeting in New York. BENJAMIN F. BANTA, Jr., export manager of The Andrew Jergens Co., was elected vice-chairman at the same session.

DR. ERNEST SHIFTAN, van Ameringen-Haebler Inc., is a violinist with the Westchester Symphony Orchestra, which will give a concert in Scarsdale, N. Y. early in January.

ALBERT STASSE Jr., son of the founder and president of the Stassal Co., sailed November 27 for France with the 21st squadron U. S. Air Force. He will be stationed at the new base in Chambley, near Metz, France. He had been in training in California for two years and in addition to his other duties served as a translator for the squadron.

K. S. SUBRAMANIAN, chemical examiner of the government of India's customs headquarters laboratory at New Delhi, is visiting the United States under a scheme of technical assistance sponsored by the Foreign Operations Administration. At present he is attached to the New York Customs Laboratory.

Obituary

Dr. Edward V. Killeen

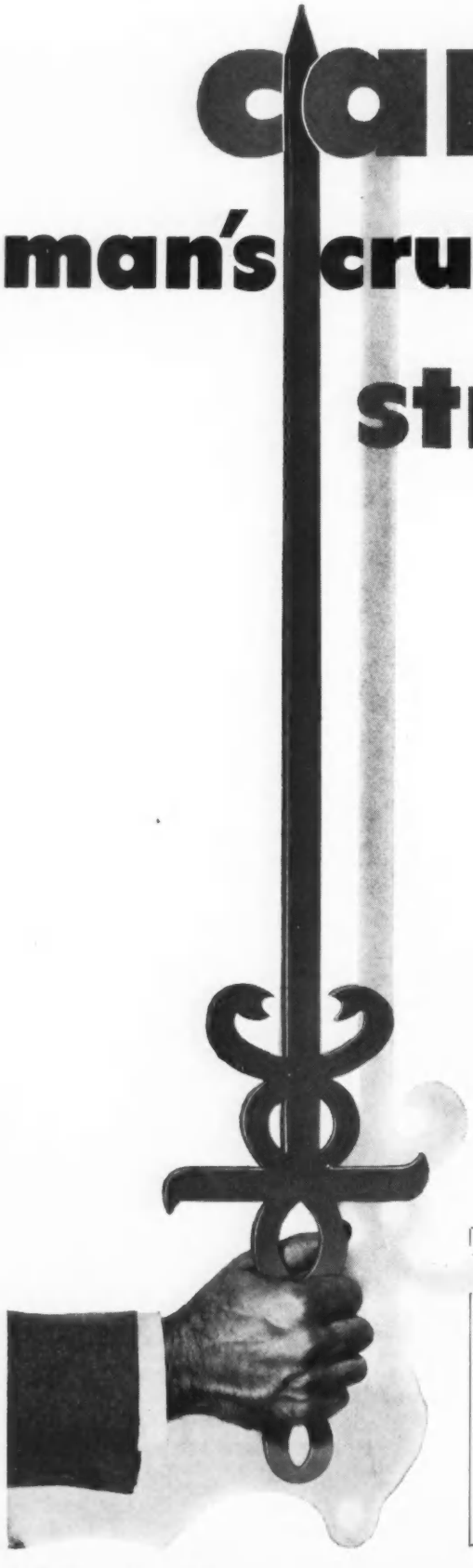
Dr. Edward V. Killeen who had been associated with the essential oil firm of George Lueders & Co. since 1897, when at the age of 15 he secured his first job with the company, died November 10 at the age of 82 years. His whole business career was spent with the company. In 1906 he was made secretary when the company was incorporated. In 1918 he was elected vice president and after the death of the founder, George Lueders, in 1931 succeeded him as president. He served as president until 1939 when he resigned but continued to serve in an advisory capacity up until his death. He was a Knight of St. Gregory—conferred by Pope Pius XIII—and received a doctors degree from The College of the Holy Cross. A son Edward Jr. died during World War I. He is survived by his widow, a son Wilbur, and two daughters, Mrs. Ruth Martin and Mrs. Clare K. Sullivan. He was a brother of Sister Miriam Anita. In his long career Mr. Killeen built up a host of friends both here and abroad who respected him for his friendly help at all times.

Russell Boland

Russell Boland, 49, eastern advertising manager and a sales executive of Topics Publishing Co., died last month after a long illness.

He was well known in the pharmaceutical and chemical fields as a representative of *Drug Trade News, Food Field Reporter* and *Drug Topics.*

cancer
man's cruelest enemy
strike back



"CANCER" is an unpleasant word. It's easier not to think about it—to turn the page, to pass on.

MOST FOLKS who see this ad, will do just that . . .

YOU ARE DIFFERENT. The fact that you're still reading this proves it.

PERHAPS you have a special reason of your own for being interested in the fight *against* cancer. Cancer may have taken away someone whom you loved. It's not unlikely, for cancer strikes one out of five of us. The young. The old. The strong no less than the weak.

LAST YEAR, Americans contributed more than ever before to the American Cancer Society. But still not enough. Not nearly enough for the struggle that *must* be waged if this implacable enemy is to be conquered for good —if we are to make cancer, like so many once-dreaded diseases, only an unpleasant *memory* in man's long and victorious struggle against his ancient enemies.

THIS YEAR—please—give more generously than ever. For your help is *needed* more than ever. Won't you please clip the coupon *now*—?

American Cancer Society

GENTLEMEN:

☐ Please send me free information on cancer.

☐ Enclosed is my contribution of $..... to the cancer crusade.

NAME.....

ADDRESS.....

CITY..... STATE.....

Simply address the envelope:
CANCER c/o Postmaster, Name of Your Town

Market Report

Lemongrass Oil, Coumarin Strong

THE continued strength in lemongrass oil has resulted in a further rise in the ionones and other closely related items. The ionones scored gains of 40 to 50 cents per pound.

Lemon Oil Reduced

The first change in the price of Exchange Brand Californian lemon oil since May took place early last month when co-distributors for Sunkist Growers, Inc. namely Fritzsche Brothers, Inc., and Dodge & Olcott, Inc., announced a reduction in their selling prices to $5.50 per pound in 35-pound cans or 385-pound drums. The yield of oil from the crop had been about normal for the first time in about two years, it was explained, and the outlook for next year's crop is encouraging although a coming crop is always subject to variance because of climatic conditions.

Consumption of lemon oil runs into thousands of pounds annually. The fact that no contract orders are being accepted at the reduced price level might be taken as an indication of a possible reversal in the downward trend, especially in view of the high level of consumption.

Lemon is among the most favorably accepted item in the flavoring oil group, it is pointed out. Output of lemon oil in Italy was below that of last year but last year's output was quite large.

Coumarin came to the front over the past month when a major producer announced that it had boosted its price 50c to $3.25 per pound. The use of coumarin in foodstuffs has been effectively discontinued but the article continues to enjoy a good sale for the account of soap manufacturers, perfumers and for technical use. Foodstuffs only accounted for about twenty percent of total usage before it had been discontinued in this field, it is said.

Advances in peppermint oil have been extended as the result of a good demand especially for export and a further shrinkage in the availability of high test oil.

Leading producers of tartaric acid and cream tartar boosted prices as the result of mounting costs of the basic material. The rise marked the first reversal in the downward price trend in three years. The last time tartrate prices were increased was in December, 1951. The advance in cream of tartar amounted to a full cent a pound while the acid was increased three cents. Imports of tartrates have been steadily dwindling in recent months since producers abroad have been successful in obtaining much better prices from local buyers.

Demand for tartrates has been maintained at a fairly good level. Such articles as caffeine and the citrates have likewise been enjoying a steady sale with prices holding generally firm. The mild weather served to keep consumption of citric acid in the beverage trade from dropping. Normally there is a rather marked decline in sales volume in the early weeks of November. Other uses of citric acid, including foodstuffs and confections, continued heavy in anticipation of holiday sales of finished products.

Spot prices on synthetic camphor were moved upward. Both the technical and USP grades of powder were increased, the former by three cents per pound and the latter by five cents. The advance established the new price for technical material at 52 cents while the USP grade was moved up to 59 cents in 2,000 pound lots, 60 cents in 1,000 pound lots and 61 cents for smaller quantities. Natural camphor which is imported from Japan and Formosa remained in a tight supply position and there appears little hope for any improvement in the situation this year.

Glycerin Steady

Glycerin has been working itself into a firmer statistical position. Official date released over the past month showed that stocks at the close of September had fallen to 47,140,000 pounds from 49,296,000 pounds at the end of the previous month, August. September output dropped 1,545,000 pounds from the August total to 16,431,000 pounds.

A portion of the 700 tons offered from the Argentine was purchased by domestic consumers. The other portion, according to reports, will be exported to Europe. A rather sizeable quantity amounting to 150 tons of crude soap lye arrived here from Madras. Unless some unforeseen development should be noted however, this year's imports of glycerin will fall far short of the total imported into the United States in 1953.

Fatty Acids Up

Advances of a half to a full cent a pound were noted in fatty acid prices. Red oil, stearic acid, and cottonseed acids all moved up a full cent a pound. There had been rumors of such a change prior to the time actual advances took place, with the result that many buyers came into the market for supplies to beat the rise.

The outlook in menthol continues to be highly clouded. Based on the statistical position in Brazil, the only real source of reasonably priced material, the future trend of prices should be upward. However occasional lots of synthetic menthol have been arriving here from Europe and, because of their lower cost, the appearance of these parcels has had a dampening effect upon the general firmness of prices. For a time spot prices appeared to be slightly firmer on reports of rising prices for Chinese menthol in the European market. Normally the months of October and November bring out some rather substantial buying orders for the account of manufacturing consumers. This year's volume however has proved disappointing.

A series of advances has taken place in rosins, both gum and wood. Unusually heavy export sales, early termination of this year's gum crop in the South and the small stocks of this year's gum crop in the Government loan are the major factors responsible for the extremely firm outlook in the market. Demands for wood rosins have been running slightly ahead of the available supply.

It Costs No More To Give More—
If You Give The Bonus In Savings Bonds!

If your company is one of the more than 45,000 companies that have the Payroll Savings Plan you *know* what your employees think of Savings Bonds—they spell it out for you every month in their Savings Bond allotments.

If you don't have the Payroll Savings Plan, and are wondering whether your people would like to receive their bonus in Bonds, here are a few significant facts:

—every month, *before they get their pay checks or envelopes*—8,500,000 men and women enrolled in the Payroll Savings Plan invest $160,000,000 in U. S. Savings Bonds.

—Payroll Savers hold their Bonds: In the three years since the popular E Bond commenced to mature (May, 1951 to September, 1954) over $14,000,000,000 have come due. Throughout this period approximately 75% of the maturing bonds were retained by their owners under the automatic extension plan.

—on September 30, 1954, the cash value of Series E and H Bonds—the kind sold only to individuals —totaled 37.8 billion dollars, a new high.

To the Payroll Saver, and to the man who buys his Bonds at a bank (because his company does not provide the Payroll Savings Plan) a One Hundred Dollar Savings Bond looks bigger and better and *is* bigger and better, than a check for $75. *Make this a merrier Christmas for every employee. Give the gift that keeps on giving.*

The United States Government does not pay for this advertising. The Treasury Department thanks, for their patriotic donation, the Advertising Council and

AMERICAN PERFUMER

PRICES IN THE NEW YORK MARKET

(Quotations on these pages are those made by local dealers, but are subject to revision without notice)

ESSENTIAL OILS

Prices per lb. unless otherwise listed.

Almond Bit, FPA per lb.	3.25@	3.75
Sweet True	.55@	.90
Amyris	1.50@	1.75
Angelica Root	70.00@	110.00
Angelica Seed	56.00@	62.00
Anise, U.S.P.	3.50@	Nom'l
Apricot Kernel	.45@	.50
Bay	1.60@	2.10
Bergamot	11.00@	13.50
Artificial	4.75@	8.75
Birchtar, crude	1.50@	1.90
Birchtar, rectified	2.25@	2.75
Bois de Rose	4.75@	6.00
Cajeput—		
U.S.P.	2.55@	3.15
Tech.	2.10@	2.30
Calamus	15.00@	20.00
Camphor "White"	.35@	.40
Cananga, native	8.00@	8.90
Rectified	12.50@	13.25
Caraway	3.50@	5.00
Cardamon	37.00@	50.00
Cascarilla	35.00@	50.00
Cassia, rectified, U.S.P.	12.75@	Nom'l
Cedar leaf, U.S.P.	2.50@	3.00
Cedar Wood	1.10@	1.40
Celery	14.25@	16.75
Chamomile Hungarian	185.00@	250.00
Cinnamon—		
Bark	28.50@	50.00
Leaf	1.40@	2.50
Citronella, Ceylon	1.25@	1.75
Java	1.40@	1.65
Java type	1.40@	1.80
Cloves, from buds	3.25@	3.90
Leaf	1.85@	2.10
Copaiba	1.90@	2.50
Coriander	14.80@	18.00
Croton	2.40@	3.00
Cumin	4.15@	4.85
Dill—		
Weed	3.80@	4.50
Seed, Indian	2.85@	3.85
Erigeron	5.50@	6.85
Eucalyptus—		
80-85%	.90@	1.25
70-75%	.70@	.95
Fennel, Sweet	2.40@	2.85
Garlic (oz.)	6.50@	9.00
Grapefruit	2.45@	3.00
Geranium, Algerian	10.65@	12.00
Bourbon	12.00@	14.00
Turkish	8.00@	9.75
Ginger	12.50@	17.00
Guaiac (Wood)	1.50@	1.90
Hemlock	2.75@	3.50
Jasmin (absolute)	265.00@	800.00
Juniper Berry	2.90@	3.75
Laurel leaf	9.85@	12.60
Lavandin	3.00@	3.75
Lavender, French—		
40-42% ester	10.50@	14.00
30-32% ester	4.00@	5.25
Spike	1.80@	2.50
Lemon, Calif.	5.50%	6.00
Italian	6.10@	7.80
Lemongrass, native	2.55@	3.00
Limes, distilled	4.00@	7.00
Expressed	7.75@	9.50
Linaloe wood	3.80@	4.25
Lovage (oz.)	6.25@	6.90
Mace	2.90@	4.00
Marjoram	2.00@	3.25
Neroli—		
Haitian	75.00@	100.00
French	155.00@	250.00
Nutmeg—		
East Indian	2.80@	3.25
West Indian	2.65@	3.65
Ocotea Cymbarum	1.10@	1.40
Olibanum	5.75@	7.50
Opopanax	30.00@	38.00
Orange, Florida	.50@	1.00
Italian	3.85@	4.70
Calif., exp.	.65@	1.20
Distilled	.75@	.80
Origanum	1.95@	2.25
Orris Root, concrete (oz.)	8.75@	9.50
Concrete, extra	14.00@	15.75
Patchouli	8.25@	9.75
Pennyroyal, European	1.95@	2.25
Peppermint natural	8.00@	8.40
Redistilled	8.50@	9.00
Petitgrain	4.35@	5.10
Pimento, Berry	6.00@	6.80
Leaf	2.60@	3.25
Pinus Sylvestris	3.00@	3.65
Pumilio	4.00@	4.90
Rose, Bulgaria (oz.)	50.00@	75.00
Synthetic, lb.	30.00@	35.00
Rosemary, Spanish	.70@	.90
Sage—		
Spanish	.95@	1.25
Dalmatian	4.95@	6.20
Sandalwood, N.F.	11.75@	12.80
Sassafras—		
Artificial	.90@	1.25
Snake root	31.00@	34.00
Spearmint	4.15@	4.85
Spruce	2.40@	2.80
Sweet birch, Southern	2.65@	3.25
Northern	4.35@	8.00
Tansy	8.00@	8.90
Thyme, red	1.80@	2.50
White	2.00@	3.25
Valerian, extra	80.00@	85.00
Vetivert—		
Bourbon	14.00@	17.50
Haitian	12.00@	19.00
Java	23.00@	35.00
Wintergreen, Southern	3.40@	15.00
Northern	6.40@	11.50
Wormseed	6.40@	6.90
Wormwood	5.25@	6.50
Ylang Ylang, Bourbon	17.00@	32.50
Haitian	12.85@	Nom'l

TERPENELESS OILS

Bay	3.25@	5.25
Bergamot	25.00@	32.00
Grapefruit	85.00@	97.00
Lavender	12.00@	16.00
Lemon	58.00@	70.00
Lime, ex	80.00@	85.00
Distilled	47.50@	60.00
Orange sweet	75.00@	97.00
Peppermint	14.50@	16.00
Petitgrain	6.00@	6.75
Spearmint	8.50@	10.75

DERIVATIVES AND CHEMICALS

Acetaldehyde 50%	2.15@	2.50
Acetophenone	1.50@	1.80
Alcohol C 8	1.95@	2.25
C 9	12.50@	13.00
C 10	2.00@	2.30
C 11	14.00@	14.50
C 12	3.00@	3.65
Aldehyde C 8	9.00@	11.00
C 9	16.50@	17.10
C 10	7.25@	7.75
C 11	19.00@	21.00
C 12	15.00@	16.00
C 14 (Peach so-called)	6.85@	7.50
C 16 (Strawberry so-called)	5.85@	6.20

B-W LANOLIN U.S.P.

EVENTUALLY—For better creams, with economy

B-W Lanolin the superior quality puts into your cream that which gives the skin that smooth soft velvety feeling.

B-W Lanolin will never cause your cream to darken, is best by test and contains over 15% free and combined Cholesterol.

No other base used in your cream, equals the merits of B-W Lanolin.

B-W HYDROPHIL (Absorption Base) Made in U.S.A.

BOPF-WHITTAM CORPORATION

Executive Office, Laboratory and Factory: Linden, N.J.

America's Original Lanolin Producer
ESTABLISHED 1914

Sales Office: 509 Fifth Ave. New York, N.Y.

Amyl Acetate	.60@	.70
Amyl Butyrate	1.00@	1.25
Amylcinnamic Aldehyde	2.25@	2.50
Amyl Formate	1.40@	1.65
Amyl Phenylacetate	4.00@	4.35
Amyl Propionate	1.30@	1.60
Amyl Salicylate	1.00@	1.25
Amyl Valerate	2.10@	2.40
Anethol	1.45@	1.55
Anisic Aldehyde	2.40@	2.80
Anisyl Acetate	6.00@	6.75
Benzyl Acetate	.80@	.85
Benzyl Alcohol	.80@	.90
Benzyl Benzoate	.75@	.95
Benzyl Butyrate	1.75@	2.00
Benzyl Cinnamate	3.60@	3.85
Benzyl Formate	2.00@	2.35
Benzophenone	1.65@	2.15
Benzyl-isoeugenol	9.10@	10.25
Benzyl Propionate	1.60@	2.10
Benzyl Salicylate	1.80@	2.35
Benzylidene Acetone	1.85@	2.50
Bromstyrol	5.70@	6.25
Butyl Acetate, normal	.15@	.16
Butyl Butyrate	1.55@	1.80
Carvol	8.00@	8.50
Cinnamic Alcohol	2.75@	3.25
Cinnamic Aldehyde	1.30@	1.50
Cinnamyl Acetate	3.65@	4.00
Citral, C. P.	6.05@	6.50
Citronellol	3.40@	3.85
Citronellyl Acetate	4.00@	4.30
Citronellyl Butyrate	6.95@	7.30
Cuminic Aldehyde	3.25@	4.10
Cyclonol	2.85@	3.15
Diethylphthalate	.45@	.51
Dimethyl Anthranilate	5.75@	6.00
Diphenyl Methane	1.15@	1.30
Diphenyl Oxide	.60@	.75
Ethyl Acetate	.30@	.35
Ethyl Benzoate	.85@	.90
Ethyl Butyrate	.85@	.95
Ethyl Capronate	2.45@	2.85
Ethyl Cinnamate	3.40@	3.65
Ethyl Formate	.70@	.80
Ethyl Phenylacetate	1.20@	1.35
Ethyl Propionate	.90@	1.00
Ethyl Salicylate	2.45@	2.75
Ethyl Vanillin	6.75@	7.30
Eucalyptol	1.85@	2.00
Eugenol	3.50@	3.95
Geraniol—		
Standard	2.50@	2.85
Extra	3.30@	4.10
Geranyl Acetate	2.85@	3.25
Geranyl Butyrate	5.25@	5.90
Geranyl Formate	5.75@	6.10
Geranyl iso-valerate	9.00@	9.80
Guaiac Wood Acetate	4.65@	5.00
Heliotropin, dom	4.25@	4.80
Hydrotropic Aldehyde	5.90@	6.35
Hydroxycitronellal	6.00@	6.90
Indol, C. P.	17.25@	19.00
Ionones—		
Alpha	6.35@	7.00
Beta	6.55@	8.25
Iso-borneol	1.65@	1.80
Iso-butyl Acetate	.55@	.95
Iso-butyl Benzoate	1.25@	1.80
Iso-butyl Salicylate	2.15@	3.00
Iso-eugenol	4.50@	4.90
Iso-safrol	2.10@	2.80
Linalool	7.10@	7.85
Linalyl, Acetate 92%	6.30@	6.35
70%	6.00@	6.10
98%	7.05@	7.40
Linalyl Formate	12.00@	12.85
Linalyl Propionate	15.00@	15.75
Menthol—		
Brazilian	7.75@	8.00
Japanese	12.00@	14.00
Synthetic, racemic	5.40@	5.45
Laevo	7.75@	8.00
Methyl Anthranilate	2.60@	2.80
Methyl Anthranilate extra	2.75@	3.10
Methyl Benzoate	.60@	1.00
Methyl Cinnamate	1.85@	2.25
Methyl Heptenone	6.75@	7.15
Methyl Heptine Carbonate	35.00@	40.00
Methyl Naphthyl Ketone	4.25@	4.60
Methyl Phenylacetate	1.10@	1.75
Methyl Salicylate	.58@	.65
Musk Ambrette	5.10@	5.30
Xylene	1.45@	1.70
Neroline (ethyl ether)	2.50@	2.80
Octyl Isobutyrate	3.50@	4.20
Paracresyl Acetate	2.20@	2.75
Paracresyl Methyl Ether	2.10@	2.75
Paracresyl Phenylacetate	4.60@	5.20
Phenylacetaldehyde 50%	2.75@	3.25
100%	4.10@	4.65
Phenylacetic Acid	1.65@	2.25
Phenylethyl Acetate	1.60@	1.95
Phenylethyl Alcohol	1.60@	1.80
Phenylethyl Butyrate	4.00@	4.50
Phenylethyl Propionate	3.40@	4.00
Phenylethyl Salicylate	4.35@	4.80
Phenylethyl Valerianate	4.90@	5.25
Phenylpropyl Acetate	3.30@	3.75
Phenylpropyl Alcohol	2.65@	3.30
Safrol	1.50@	1.75
Scatol (oz.)	2.75@	3.25
Styrolyl Acetate	1.65@	2.25
Thymol, crystals	2.65@	3.00

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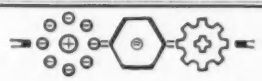

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